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# CONSOLIDATED TRANSLATION SURVEY

Number 130

Through 31 October 1968

CENTRAL INTELLIGENCE AGENCY  
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CONSOLIDATED TRANSLATION SURVEY

FOR OCTOBER 1968

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## CONSOLIDATED TRANSLATION SURVEY

### PREFACE

This survey is prepared monthly from lists received through the cooperation of US government agencies and includes universities, research institutions, and commercial translation organizations. It is a compilation of projects completed or started during the preceding month.

Translations are listed by area and subject category. Scientific projects are grouped as a section regardless of geographic area. Title in English, author, foreign language title of source of material, date of publication, and publication identifications of the completed project are given when available. Tables of contents of journals translated cover-to-cover are reproduced from the current publications.

Projects in process, i.e., not completed as of the date of this survey, are noted with an asterisk (\*), and when available, a project-control or "in-process" number is noted in parentheses following the title. Certain details may be unavailable on such projects. New projects in process are not listed again until they are completed.

An index to authors of items in this issue is provided at the end of the survey.

Scientific and technical translations are grouped according to the COSATI subject category list except for military science and ordnance items which are listed under "military" in the appropriate geographic areas.

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AEC - Atomic Energy Commission (see CFSTI)

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Air Force Cambridge Research Laboratories  
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Bedford, Massachusetts  
ATTN: CRMXLR

AGU

American Geophysical Union  
1515 Massachusetts Avenue, N.W.  
Washington, D. C. 20005

AIP

American Institute of Physics  
335 East 45th Street  
New York, New York 10017

AMS - Army Map Service (see ACSI)

Amer Math Soc

American Mathematical Society  
P.O. Box 6248  
Providence, Rhode Island 02904

ANL - Argonne National Laboratory, Illinois  
(see AEC)

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**British Iron and Steel Industry Translation Service  
The Iron and Steel Institute  
4 Grosvenor Gardens  
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**CB**

**Consultants Bureau Enterprises, Incorporated  
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**Defense Documentation Center  
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Alexandria, Virginia**

**FTD - Foreign Technology Division (see AF)**

**HB**

**Henry Bratcher Technical Translations  
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IEEE

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275 Madison Avenue  
New York, New York 10016

Department of Interior

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U.S. Department of Commerce  
Clearinghouse for Federal Scientific  
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Joint Publications Research Service  
Building Tempo E,  
East Adams Drive, 4th & 6th Streets, SW  
Washington, D. C. 20443

Natl Bu Stand

National Bureau of Standards  
ATTN: Dr. Henry Birnbaum  
Room 314, South Building  
Washington, D. C.

NIC

Naval Intelligence Command  
Naval Intelligence Command Headquarters  
NIC-15  
Washington, D. C. 20350

NIH

Circulation Unit  
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National Institutes of Health  
Building 10, Room 5N118  
Bethesda, Maryland 20014

NMS

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National Naval Medical Center  
Bethesda, Maryland 20014

NOO

U. S. Naval Oceanographic Office  
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NSJ - see AEC

ORNL - Oak Ridge National Laboratory (see AEC)

OSA

Optical Society of America, Incorporated  
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RSIC - Defense Documentation Center, Redstone  
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Sci & Tech Info Facility

Scientific & Technical Information Facility  
National Aeronautics and Space Administration  
Goddard Space Flight Center  
Contract No NAS-5-12487

UCRL

University of California  
Lawrence Radiation Laboratory  
Livermore, California  
(see AEC)

USSR

Economic

Proposals Made to Improve Accounting in Mining,  
by Yu. Igumnov, 11 pp.  
RUSSIAN, per, Bukhgalterskiy Uchet, No 7, 1968,  
pp 3-11.  
JPRS 46407

Computers Aid in Implementing of Economic Reform,  
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pp 3-14.  
JPRS 46189

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JPRS 46512

New Credit System Requires Better Bank Work,  
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pp 13-16.  
JPRS 46193

Report on Journal Readers' Conferences, 8 pp.  
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pp 94-96.  
JPRS 46259

Management Made More Efficient in Novosibirsk,  
by N. Dybenko and R. Buryndin, 5 pp.  
RUSSIAN, np, Ekonomicheskaya gazeta, No 15,  
Apr 1968, pp 14-15.  
JPRS 45695

Incentive Funds Based on Profits, by  
V. Kzheshevskiy, 5 pp.  
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21 May, 1968, pp 17-18.  
JPRS 45698

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N. Skorniyakov, 5 pp.  
RUSSIAN, np, Ekonomicheskaya gazeta, No 19,  
May 1968, p 41.  
JPRS 45695

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Quality Control System at L'vov Enterprises, by  
I. Kochevykh, Ye. Udovichenko, 7 pp.  
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P. Likhodiy, 16 pp.  
RUSSIAN, np, Ekonomicheskaya Gazeta,  
Moscow, No 24, June 1968, pp 15-17.  
JPRS 46499

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RUSSIAN, np, Ekonomicheskaya Gazeta,  
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p 41.  
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July 1968, p 39.  
JPRS 46384

CMEA Official Interviewed on Current Year Trade,  
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JPRS 46266

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July 1968, p 45.  
JPRS 46266

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Moscow, No 32, August 1968, p 4.  
JPRS 46420

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Payment for Capital as an Economic Lever, by  
P. Verba, 5 pp.  
RUSSIAN, np, Ekonomicheskaya Gazeta, No 32, Aug  
1968, p 9.  
JPRS 46407

Rules for Bonuses to Domestic Services Workers,  
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RUSSIAN, np, Ekonomicheskaya gazeta, Moscow,  
No 32, August 1968, p 40.  
JPRS 46420

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JPRS 46384

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A. Sukhoplyuyev, 5 pp.  
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Moscow, No 33, August 1968, p 9.  
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20 pp.  
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JPRS 46528

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pp 39-47.  
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JPRS 46349

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JPRS 46391

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Management Problems Discussed, by P. Slivin, 7 pp.  
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JPRS 46466

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JPRS 46270

Normative and Actual Working Family Budgets, by V. Borycheva, 9 pp.  
RUSSIAN, per, Novyy Mir, Apr 1968, pp 261-266.  
JPRS 46265

Planning Scientific and Technical Progress, by I. Prost'yakov, N. Surmach, 13 pp.  
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JPRS 46193

Gosplan Official Discusses Planning Problems, by N. P. Lebedinskiy, 18 pp.  
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JPRS 46259

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More Economics Being Taught Personnel in Economy, by N. I. Mokhov, 18 pp.  
RUSSIAN, per, Planovoye Khozyaystvo, July 1968, pp 67-80.

Improvement of National Economic Planning Debated, by M. Gorshkov, S. Nedoreshto, 15 pp.  
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JPRS 46259

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JPRS 45698

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JPRS 45857

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JPRS 46193

Impact of Economic Reform, by N. Petrov, 6 pp.  
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JPRS 46,355

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JPRS 46499

Output of Mineral Fertilisers Accelerated, by I. Minevich, 5 pp.  
RUSSIAN, np, Rabochaya Gazeta, 13 Jul 1968, p 3.  
JPRS 46,315

USSR  
Economic (Contd)

Data on the Biology and Commercial Fishing of Shrimp in the Persian Gulf, by I. V. Kaliuzhnyi, A. A. Rudnitskii.  
RUSSIAN, per, Rybnoe Khoz, Vol 44, No 7, 1968, pp 12-13.

\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

Development of Deep-Sea Purse Seining, by O. I. Sakovets, V. M. Kirillov.  
RUSSIAN, per, Rybnoe Khoz, Vol 44, No 7, 1968, pp 26-28.

\*Dept of Interior  
Bureau of Commercial Fisheries  
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Our Experience with the Purse Seine in the Atlantic, by O. Ker'kel.  
RUSSIAN, per, Rybnoe Khoz, Vol 44, No 7, 1968, pp 29-31.

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Production Technology of Edible Minced Meat from Walleye Pollock, by L. Ia. Ertel'.  
RUSSIAN, per, Rybnoe Khoz, Vol 44, No 7, 1968, pp 46-48.

\*Dept of Interior  
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How to Increase the Economic Efficiency of Purse Seining, by L. K. Losev.  
RUSSIAN, per, Rybnoe Khoz, Vol 44, No 7, 1968, pp 71-73.

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Improvements of Wage Systems for Kolkhoz Members, by M. Deshkevich, 5 pp.  
RUSSIAN, np, Sel'skaya Zhizn, 13 June 1968, p 2.  
JPRS 46087

The Efficient Utilization of Soviet Labor Resources, by N. Zabelin, 12 pp.  
RUSSIAN, per, Sotsialisticheskiy Trud, No 5, May 1968, pp 20-28.  
JPRS 46087

USSR  
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Operation of Incentive Funds Clarified, 8 pp.  
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May 1968, pp 60-64.  
JPRS 46087

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G. Semenikhin, 7 pp.  
RUSSIAN, np, Sovetskaya Belorussiya, 6 Aug  
1968, p 2.  
JPRS 46407

Prospects for Augmenting the Labor Force, by  
O. Dobrokhotov, 5 pp.  
RUSSIAN, np, Sovetskaya Estoniya, 30 June 1968,  
p 2.  
JPRS 46087

Increased Use of Computers in the  
Economy, by M. Ramān, 5 pp.  
RUSSIAN, np, Sovetskaya Latvija,  
Moscow, 13 July 1968, p 2.  
JPRS 46499

Fraudulent Operations Uncovered in  
Lithuania, by F. Tikhonov, 5 pp.  
RUSSIAN, np, Sovetskaya Litva,  
Vil'nyus, 1 August 1968, p 2.  
JPRS 46583

Proposed Improvements in Capital  
Construction, 7 pp.  
RUSSIAN, np, Sovetskaya Litva,  
Vil'nyus, 15 August 1968, p 1.  
JPRS 46512

Economic Reform Problems in Lithuania  
Cited, by P. Kul'vets, 5 pp.  
RUSSIAN, np, Sovetskaya Litva, Vil'nyus,  
18 August 1968, p 2.  
JPRS 46583

Reforms in Moldavian Construction  
Industry, by A. Gutnik, 6 pp.  
RUSSIAN, np, Sovetskaya Moldavia,  
Kishinev, 20 August 1968, p 2.  
JPRS 46528

USSR  
Economic (Contd)

Trade Workers Meet For Conference  
in Leningrad, by Ye. Fisher, 7 pp.  
RUSSIAN, per, Sovetskaya Potrebitel'-  
skaya Kooperatsiya, Moscow, No 8,  
August 1968, pp 49-51.  
JPRS 46500

Rural Trade to be Developed, by V. Shlemin,  
7 pp.  
RUSSIAN, np, Sovetskaya Torgovlya, 30 May  
1968, p 1.  
JPRS 45859

Lag in Trade Turnover Noted in Many Areas, by  
A. Struyev, 6 pp.  
RUSSIAN, np, Sovetskaya Torgovlya, 16 July 1968,  
p 2.  
JPRS 46268

Imported Foodstuffs Acceptance Order Issued, by  
A. Mogilyanskiy, 5 pp.  
RUSSIAN, per, Sovetskaya Yustitsiya, No 11, June  
1968, pp 21-22.  
JPRS 46094

Postal Inspection Reveals Deficiencies, 5 pp.  
RUSSIAN, np, Trud, 11 July 1968, p 2.  
JPRS 46297

Tbilisi Conference Discusses Five-Day  
Work Week, 7 pp.  
RUSSIAN, np, Trud, Moscow, 3 August  
1968, p 2.  
JPRS 46420

Inventions - Their Effect on Economic Enter-  
prise (Descriptive Title), by V. N. Ovchinnikov,  
5 pp.  
RUSSIAN, np, Trud, 12 Oct 1966. P100203668  
FTD-MT-67-318

Decree of Supreme Soviet RSFSR on 1968 Plan for  
Light Industry, 8 pp.  
RUSSIAN, per, Vedomosti Verkhovnogo Sovets RSFSR,  
No 30 (512), 25 July 1968, pp 645-649.  
JPRS 46391

Western Economists Analyze Economic Reform, by  
L. N. Speranskaya, 11 pp.  
RUSSIAN, per, Vestnik Moskovskogo Universiteta,  
No 2, Mar-Apr 1968, pp 68-76.  
JPRS 46391

USSR  
Economic (Contd)

Use of Computers in Statistics Discussed, by  
P. Bogatyrev, 10 pp.  
RUSSIAN, per, Vestnik Statistiki, No 5, 1968,  
pp 75-82.  
JPRS 46044

Computing Volume of Sales of Industrial Output,  
by M. Pessel', 12 pp.  
RUSSIAN, per, Vestnik Statistiki, No 6, 1968,  
pp 14-22.  
JPRS 46189

Statistics and Forecasting Solvent Demand, by  
B. Davidovich, R. Nazarov, 15 pp.  
RUSSIAN, per, Vestnik Statistiki, No 6, 1968,  
pp 23-33.  
JPRS 46189

Method of Computing the Accumulation Fund, by  
P. Moskvín, 9 pp.  
RUSSIAN, per, Vestnik Statistiki, No 6, 1968,  
pp 48-53.  
JPRS 46189

Improvements Needed in Wholesale Price Reform,  
by V. Sitnin, 14 pp.  
RUSSIAN, per, Voprosy Ekonomiki, No 5, 1968, pp  
26-36.  
JPRS 46044

Long-Range Economic Development of Siberia, by  
F. Baturin, B. Orlov, 8 pp.  
RUSSIAN, per, Voprosy Ekonomiki, No 5, 1968,  
pp 146-148.  
JPRS 46044

National Economic Conference Held on Reform,  
11 pp.  
RUSSIAN, per, Voprosy Ekonomiki, No 6, 1968,  
pp 3-10.  
JPRS 46,349

Interbranch Balance Integrated in Planning,  
by N. Kovalev, 18 pp.  
RUSSIAN, per, Voprosy Ekonomiki, No 6, 1968,  
pp 25-37.  
JPRS 46,349

Value Relationships of Fixed Capital Traced,  
by P. Pavlov, 17 pp.  
RUSSIAN, per, Voprosy Ekonomiki, No 6, 1968,  
pp 38-50.  
JPRS 46,349

USSR  
Economic (Contd)

Determining Economic Effect of Research, by  
S. Golosovskiy, 14 pp.  
RUSSIAN, per, Voprosy Ekonomiki, No 6, 1968,  
pp 75-85.  
JPRS 46,349

Problems in Economics of Output Quality,  
by D. L'vov, V. Sedov, 10 pp.  
RUSSIAN, per, Voprosy Ekonomiki,  
Moscow, August 1968, pp 42-48.  
JPRS 46583

CEMA Scientific-Technical Collabora-  
tion Analyzed, by A. Bykov, 10 pp.  
RUSSIAN, per, Voprosy Ekonomiki,  
Moscow, No 8, August 1968, pp 59-66.  
JPRS 46527

Economist Rejects Separate Socialist  
Price System, by K. Popov, 14 pp.  
RUSSIAN, per, Voprosy Ekonomiki,  
Moscow, No 8, August 1968, pp 67-75.  
JPRS 46527

Economic Import of Soviet Mining to the Outside  
World, 6 pp.  
GERMAN, rpt, Wochenbericht des Deutschen Insti-  
tutes fuer Wirtschaftsforschung, 11 July 1968,  
pp 168-170.  
JPRS 46266

Political

Azerbaijdzhan Party to Improve  
Ideological Work, 10 pp.  
RUSSIAN, np, Bakinskiy Rabochiy, Baku,  
31 August 1968, p 1.  
JPRS 46509

Bonn's New Eastern Policy Viewed  
With Skepticism, by Ernst Henri, 7 pp.  
RUSSIAN, np, Izvestiya, Moscow,  
15 August 1968, pp 2, 5.  
JPRS 46513

USSR  
Political (Contd)

Eternally Alive Revolutionary Theory,  
15 pp.  
RUSSIAN, per, Kommunist, No 6, Apr 1968,  
pp 25-37.  
JPRS 45699

The Roots of the Present Events in China,  
15 pp.  
RUSSIAN, per, Kommunist, No 6, Apr 1968,  
pp 102-113.  
JPRS 45699

K. Marx and F. Engels on Proletarian Inter-  
nationalism, by N. Shitov, 12 pp.  
RUSSIAN, per, Kommunist, No 7, May 1968, pp 32-  
43.  
JPRS 45839

Marx's Theory and the Struggle Against Con-  
temporary Bourgeois Ideology, by T. Oyzerman, 12 pp  
RUSSIAN, per, Kommunist, No 7, May 1968, pp 44-54.  
JPRS 45839

The Embracing of a Foe, by B. Bykhovskiy,  
11 pp.  
RUSSIAN, per, Kommunist, No 7, May 1968, pp 66-75.  
JPRS 45839

Every Communist is Responsible for the Party.  
The Party is Responsible for Every Communist,  
10 pp.  
RUSSIAN, per, Kommunist, No 7, May 1968, pp 76-84.  
JPRS 45839

The Ideological Content of Economic Leadership,  
by V. Zaluzhnyy, 13 pp.  
RUSSIAN, per, Kommunist, No 7, May 1968, pp 85-  
95.  
JPRS 45839

Political Leader of the People, 13 pp.  
RUSSIAN, per, Kommunist, Moscow, No 10, July  
1968, pp 3-13.  
JPRS 46525

A Combat Unit of the Leninist Party, by  
F. Ovcharenko, 17 pp.  
RUSSIAN, per, Kommunist, Moscow, No 10, July  
1968, pp 36-47.  
JPRS 46525

USSR  
Political (Contd)

Rise of Neo-Nazism in West Germany Described,  
by A. Blank, 14 pp.  
RUSSIAN, per, Kommunist, Moscow, No 10, July  
1968, pp 78-89.  
JPRS 46525

Primary Party Organizations -- Basis of the CPSU,  
by Sh. Rashidov, 20 pp.  
RUSSIAN, per, Kommunist Uzbekistana, Apr 1968,  
pp 22-38.  
JPRS 46037

Military Approve of Central Committee CPSU  
International Policies, 6 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil,  
May 1968.  
JPRS 46049

Communist Parties Display Wealth of Revolutionary  
Forms and Tactics, by A. Migolat'yev, 12 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil,  
May 1968, pp 20-28.  
JPRS 46049

Battle Against Bourgeois Ideology Continuing,  
by I. Seleznev, 10 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, No 13,  
July 1968, pp 8-16.  
JPRS 46305

Bourgeois, Proletarian Democracy Compared, by  
M. Yasyukov, 13 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, No  
14, July 1968, pp 8-16.  
JPRS 46272

Party Groups Active in Summer Troop  
Training, 8 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh  
Sil, Moscow, No 15, 1968, pp 3-8.  
JPRS 46572

More Aggressive Battalion Political  
Work Urged, by M. Yersunov, 5 pp.  
RUSSIAN, np, Krasnaya Zvezda, Moscow,  
10 September 1968, p 2.  
JPRS 46542

USSR  
Political (Contd)

Results of Party Training in Moscow Oblast, by A. V. Gogolev, 8 pp.  
RUSSIAN, np, Leninskoye Znamya, Moscow, 30 July 1968, pp 2-3.  
JPRS 46424

Komsomol to Mark Fiftieth Anniversary, by N. Rubtsov, 12 pp.  
RUSSIAN, per, Partiynaya Zhizn', No 11, June 1968, pp 36-44.  
JPRS 46082

Party Guidance of Ideological Work Outlined, by N. Rodinov, 12 pp.  
RUSSIAN, per, Partiynaya Zhizn', July 1968, pp 8-15.  
JPRS 46256

Call for Efficiency in Party Leadership, by A. Vatchenko, 11 pp.  
RUSSIAN, per, Partiynaya Zhizn', July 1968, pp 18-25.  
JPRS 46256

Political Prisoners in USSR are Mistreated, by A. Marchenko, 6 pp.  
RUSSIAN, per, Posev, June 1968, pp 5-7.  
JPRS 46255

Krasnoyarsk Kray Party Holds Meeting on Komsomol, by V. Dubkov, M. Mironov, 5 pp.  
RUSSIAN, np, Pravda, 10 June 1968, p 2.  
JPRS 46037

Kiev Party Official Outlines Control of Culture, by A. Botvin, 6 pp.  
RUSSIAN, np, Pravda, 13 July 1968, p 2.  
JPRS 46198

Rashidov Speaks at Uzbek Party Press Anniversary, by Sh. R. Rashidov, 5 pp.  
RUSSIAN, np, Pravda Vostoka, 22 June 1968, p 2.  
JPRS 46037

Soviet Citizens Cautioned Against Western Spies, by V. Avgustov, V. Viktorov, 13 pp.  
RUSSIAN, np, Sovetskaya Estoniya, 3, 4, 6, 7 and 8 Aug 1968, p 5.  
JPRS 46364

Party and Government Issue Medical Decree, 5 pp.  
RUSSIAN, np, Sovetskaya Rossiya, 3 Aug 1968, p 1.  
JPRS 46365

USSR  
Political (Contd)

Ukrainian Communist Party Marks Anniversary, by P. Ye. Shelest, 18 pp.  
RUSSIAN, per, Voprosy Istorii KPSS, Moscow, July 1968, pp 7-20.  
JPRS 46455

Military

Innovations in Party-Political Work in Soviet Navy, by V. Grishanov, 6 pp.  
RUSSIAN, per, Agitator, No 12, June 1968, pp 13-15.  
JPRS 46081

Compensation Upon Conscription into Active or Reserve Military Service, 6 pp.  
RUSSIAN, per, Gosudarstvennyy Komitet Soveia Ministrov SSSR po Voprosam Truda i Zarebotnoy Platy -- Byulleten', No 7, 1968, pp 4-8.  
JPRS 46355

Fifty Years of Soviet Armed Forces, by M. V. Zakharov, 18 pp.  
RUSSIAN, bk, 50 Let Vooruzhennykh Sil SSSR, 1968, pp 7-12; 559-564, 579-581.  
JPRS 46043

Strengthening Sergeants' Authority Discussed, 9 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, No 6, June 1968, pp 60-64.  
JPRS 46200

Monograph on Military Psychology Reviewed, by V. Karayyshev, 8 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, No 6, June 1968, pp 88-92.  
JPRS 46200

Military Customs and Communist Education of Staff, by A. Resnik, 8 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, No 10, May 1968, pp 47-51.  
JPRS 46081

Formation of the Combat Activity of Troops, by V. Kovalev, 9 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, No 10, May 1968, pp 63-67.  
JPRS 46081

USSR  
Military (Contd)

Military Theoretician Discusses Armed Forces, by I. Grudin, 10 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, No 11, 1968, pp 15-22.  
JPRS 46046

New Conscription Law Propagandized by Party, by M. Semerenko, 6 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, No 11, 1968, pp 23-26.  
JPRS 46046

Psychological Training for Troops Discussed, by V. Golovkin, 9 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, No 11, 1968, pp 42-47.  
JPRS 46046

Naval Indoctrination During Long Cruises, by A. Skryl'nik, 8 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, No 11, 1968, pp 48-52.  
JPRS 46046

Benefits for Discharged Servicemen Enumerated, by Justice A. Malent'yev, Justice V. Vandyshev, 7 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, No 11, 1968, pp 83-86.  
JPRS 46046

Western Forgers of World War II History Berated, by V. Sedistov, G. Korotkov, 9 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, No 12, June 1968, pp 8-14.  
JPRS 46200

Commander -- Subordinate Relationship Examined, by N. Tabunov, 9 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, No 12, June 1968, pp 15-21.  
JPRS 46200

Elements of Command Authority, by M. Timofeychev, 9 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, No 14, July 1968, pp 24-29.  
JPRS 46269

Soviet Air Force Achievements Briefly Outlined, 13 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, No 14, July 1968, pp 30-35.  
JPRS 46269

USSR  
Military (Contd)

Role of Political Affairs Deputy in Naval Landings, by Kh. Gimad'yev, 8 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, No 14, July 1968, pp 51-55.  
JPRS 46269

Defense Ministry Award-Winning Books Reviewed, by V. Kazarinov, 11 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, No 14, July 1968, pp 88-92.  
JPRS 46269

Military Policy Discussed From Economic Aspect, by Cherednichenko, 11 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, Moscow, No 15, 1968, pp 9-16.  
JPRS 46572

Training and Equipment of Tank Troops Reviewed, 9 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, Moscow, No 15, 1968, pp 21-24.  
JPRS 46572

Social Sciences Stressed For Combat Engineers, by V. Serebryannikov, M. Morozov, 8 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, Moscow, No 15, 1968, pp 38-42.  
JPRS 46572

Letters to Editors Stress Troop Discipline, 10 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, Moscow, No 15, 1968, pp 43-47.  
JPRS 46572

Airborne Troops Need Psychological Training, by L. Grimak, 10 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, Moscow, No 15, 1968, pp 61-65.  
JPRS 46572

Military Museum Traces History of Border Troops, by F. Likhachev, 12 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, Moscow, No 15, 1968, pp 66-71.  
JPRS 46572

USSR  
Military (Contd)

History and Achievements of Air Force Described, by N. Goncharov, 10 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, Moscow, No 15, 1968, pp 77-81.  
JPRS 46572

Importance of Officer Candidate Platoon Leaders, by Maj. Gen. P. Mel'nikov, 5 pp.  
RUSSIAN, np, Krasnaya zvezda, 16 May 1968, p 2.  
JPRS 45708

The Trench in Nuclear Warfare, by V. Ogorodnikov, 5 pp.  
RUSSIAN, np, Krasnaya Zvezda, 30 May 1968, p 3.  
JPRS 45858

Combat Realism Required for Naval Training, by V. Germanovich, 5 pp.  
RUSSIAN, np, Krasnaya Zvezda, 1 June 1968, p 2.  
JPRS 45858

Realistic Air Training Stressed, by P. Zagaynyy, 5 pp.  
RUSSIAN, np, Krasnaya Zvezda, 5 June 1968, p 1.  
JPRS 45858

Tactical Anti-Submarine Exercise Described, by O. Baronov, G. Savichev, 7 pp.  
RUSSIAN, np, Krasnaya Zvezda, 20 June 1968, p 1.  
JPRS 46081

Role of Air Force Firing Ranges Defined, by S. Zhukovskiy, 5 pp.  
RUSSIAN, np, Krasnaya Zvezda, 20 June 1968, p 2.  
JPRS 46081

Air Chasti Apply Scientific Organization of Labor, by S. Orbanov, 5 pp.  
RUSSIAN, np, Krasnaya Zvezda, 27 June 1968, p 2.  
JPRS 46081

Tourism to be Encouraged Among Military Personnel by F. Malykhin, 5 pp.  
RUSSIAN, np, Krasnaya Zvezda, 20 June 1968, p 4.  
JPRS 46081

USSR  
Military (Contd)

Member of Communist Party Commission Discusses Expulsion of Officers from Party for Misappropriation of Funds and Materials, by A. Shmalev, 5 pp.  
RUSSIAN, np, Krasnaya Zvezda, 29 June 1968, p 2.  
JPRS 46081

Soviet Missileman Anatoliy Ignat'yevich Doronidontov Receives Award for Combat and Political Training, by S. Mikhaylov, 5 pp.  
RUSSIAN, np, Krasnaya Zvezda, 30 June 1968, p 4.  
JPRS 46081

Importance of Flexibility and Creativity in Tactics, by A. Dzyza, 5 pp.  
RUSSIAN, np, Krasnaya Zvezda, 19 Jul 1968, p 2.  
JPRS 46,246

Anniversary of Battle of Kursk Heralded, by M. V. Zakharov, 7 pp.  
RUSSIAN, np, Krasnaya Zvezda, 4 Aug 1968, p 2.  
JPRS 46,246

Training in the Psychology of Troop Morale, by A. Sidorenko, 5 pp.  
RUSSIAN, np, Krasnaya Zvezda, Moscow, 7 August 1968, p 2.  
JPRS 46542

The Tank and a Nuclear Explosion, by A. Khersonskiy, L. Shmelev, 5 pp.  
RUSSIAN, np, Krasnaya Zvezda, Moscow, 8 August 1968, p 3.  
JPRS 46542

On Board a Strategic Bomber Over the Arctic, by I. Dynin, 5 pp.  
RUSSIAN, np, Krasnaya zvezda, Moscow, 18 August 1968, p 2.  
JPRS 46501

Soviet Naval Force on Cruise in the Tropics, by N. Khovrin, 5 pp.  
RUSSIAN, np, Krasnaya Zvezda, 20 Aug 1968, p 2.  
JPRS 46378

Processing of Aerial Photographs Important, by V. Zhukov, 6 pp.  
RUSSIAN, per, Kryl'ya Rodiny, 2 Aug 1968, pp 11-12.  
JPRS 46,246



USSR  
Military (Contd)

Lessons of World War Two and Preserving Peace,  
by D. Lobanov, 5 pp.  
RUSSIAN, np, Moskovskaya Pravda, 22 Jun 1968,  
p 2.  
JPRS 46,359

New Materials and Designs for Tanks Discussed, by  
Ye. Kosyrev, 16 pp.  
RUSSIAN, per, Nauka i Zhizn', No 5, 1968, pp 39-  
44.  
JPRS 46081

Manual on Political Work in Army and Navy, by  
I. S. Mareyev, 27 pp.  
RUSSIAN, mono, Partiyno-politicheskaya Rabota  
v Sovetskoy Armii i Flote, pp 3-16; 441-445,  
447.  
JPRS 46,246

Marshall Vershinin Examines Air Force Potential,  
by K. Vershinin, 5 pp.  
RUSSIAN, np, Pravda, 18 Aug 1968, p 2.  
JPRS 46378

Achievements of Soviet Tank Troops  
Reviewed, by Pavel Poluboyarov,  
5 pp.  
RUSSIAN, np, Sovetskaya Latvija,  
Riga, 8 September 1968, p 2.  
JPRS 46542

Soviet Armored Troops Praised by  
General Getman, by A. Getman, 5 pp.  
RUSSIAN, np, Sovetskiy Patriot, Moscow,  
8 September 1968, p 1.  
JPRS 46542

Our Modern Navy on the World's Oceans, by  
V. M. Grishanov, 7 pp.  
RUSSIAN, per, Sovetskiy Voin, Jul 1968,  
pp 1-3.  
JPRS 46,359

Future Submariners Begin Their Training, by  
Lev Khakhalin, 3 pp.  
RUSSIAN, per, Sovetskiy Voin, Jul 1968,  
pp 9-12.  
JPRS 46,359

Discussion of Problems Facing Army Theatre,  
9 pp.  
RUSSIAN, per, Sovetskiy Voin, Jul 1968,  
pp 27-29.  
JPRS 46,359

USSR  
Military (Contd)

Amateur Performances for the Military, by  
A. Kapilov, 6 pp.  
RUSSIAN, per, Sovetskiy Voin, Jul 1968,  
pp 38-39.  
JPRS 46,359

Modern Development of Aircraft  
Weaponry, by Ye. Arkad'yev,  
Ye. Vadimov, 10 pp.  
RUSSIAN, per, Tekhnika i Vooruzheniye,  
Moscow, No 8, 1968, pp 22-25.  
JPRS 46542

Handbook for a Potential Draftee in the USSR, by  
N. A. Beshkarev, V. T. Yemel'yanov, 6 pp.  
RUSSIAN, bk, V Pomoshch Dopriyavniku, 1967.  
JPRS 46181

Poor Work by DOSAAF Committees Condemned, by  
V. Sysoyev, 8 pp.  
RUSSIAN, per, Voyennyye Znaniya, No 5, 1968,  
pp 6-8.  
JPRS 46036

Protection Against Nuclear Shock Wave, by  
V. Chumakov, 5 pp.  
RUSSIAN, per, Voyennyye Znaniya, No 5, 1968,  
pp 26-27.  
JPRS 46036

Functions of a Civil Defense Training Point, by  
A. Novgorodov, 7 pp.  
RUSSIAN, per, Voyennyye Znaniya, No 5, 1968,  
pp 30-31.  
JPRS 46036

A Faculty of Organizers of Defense Work, by  
G. Tomlin, 5 pp.  
RUSSIAN, per, Voyennyye Znaniya, No 5, 1968,  
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JPRS 46036

Thirtieth Anniversary of Soviet Navy, 7 pp.  
RUSSIAN, per, Voyennyye Znaniya, No 7, 1968, pp 1-  
2.  
JPRS 46378

Captain of a Missile Cruiser Speaks Out, 6 pp.  
RUSSIAN, per, Voyennyye Znaniya, No 7, 1968,  
pp 8-9.  
JPRS 46378

USSR  
Military (Contd)

Role of Komsomol in Armed Forces Listed, by  
N. Krechetnikov, 8 pp.  
RUSSIAN, per, Voyennyye Znaniya, No 7, 1968,  
pp 12-13.  
JPRS 46378

Role of Party Groups in Civil Defense Exercises,  
by K. Zaporozhchenko, 5 pp.  
RUSSIAN, per, Voyennyye Znaniya, No 7, 1968,  
pp 18-19.  
JPRS 46378

Methods of Breaking Trails Detailed, by  
K. Boroday, 5 pp.  
RUSSIAN, per, Voyennyye Znaniya, No 7, 1968,  
pp 23-24.  
JPRS 46378

Routing of Civil Defense Traffic Explained,  
by A. Nebol'sin, S. Bachinin, 9 pp.  
RUSSIAN, per, Voyennyye Znaniya, No 7, 1968,  
pp 26-27.  
JPRS 46378

Daily Schedule of Soviet Soldier Outlined, by  
V. Grinevskiy, 7 pp.  
RUSSIAN, per, Voyennyye Znaniya, No 7, 1968,  
pp 28-29.  
JPRS 46378

Komsomol Activities Among Youth Reviewed, by  
Yu. Nazhivin, 6 pp.  
RUSSIAN, per, Voyennyye Znaniya, No 7, 1968,  
pp 34-35.  
JPRS 46378

Work of a Kolkhoz DOSAAF Organization, by  
V. Maksimov, 5 pp.  
RUSSIAN, per, Voyennyye Znaniya, No 7, 1968,  
pp 38-39.  
JPRS 46378

Psychological Training of Soldiers  
Is Important, by Ryabov, 7 pp.  
RUSSIAN, per, Voyennyye Znaniya,  
Moscow, No 8, August 1968, pp 4-5.  
JPRS 46542

New Personnel Carrier Described, by  
Ye. Orekhov, 9 pp.  
RUSSIAN, "p. Za rulem, May 1968, p 11.  
JPRS 45858

USSR  
Geographic

Geographic Prognosis, by Yu. G. Saushkin,  
16 pp.  
RUSSIAN, per, Priroda, Moscow, No 7,  
1968, pp 35-42.  
JPRS 46574

Sociological

Transcaucasian Literary Critics: More Reports,  
8 pp.  
RUSSIAN, np, Baldinskiy Rabochiy, 31 May and 1  
June 1968, p 3.  
JPRS 46037

Staff Personnel Bonuses Under New  
Reform, 7 pp.  
RUSSIAN, per, Gosudarstvennyy Komitet  
Soveta Ministrov SSSR po Voprosam Truda  
i Zarabotnoy Platy -- Byulleten', Moscow,  
No 6, 1968, pp 3-8.  
JPRS 46420

Bonuses to State Insurance Staff  
Personnel, 5 pp.  
RUSSIAN, per, Gosudarstvennyy Komitet  
Soveta Ministrov SSSR po Voprosam Truda  
i Zarabotnoy Platy -- Byulleten', Moscow,  
No 6, 1968, pp 17-20.  
JPRS 46420

Proposals Made to Overcome VUZ  
Teacher Shortage, by  
A. Daynovskiy, K. Daynovskaya, 9 pp.  
RUSSIAN, per, Ekonomicheskiye Nauki,  
Moscow, No 7, July 1968, pp 50-56.  
JPRS 46532

Annual Vacation for Female Workers, by B. N.  
Khomalyanskiy, 8 pp.  
RUSSIAN, per, Izvestiya Akademii Nauk USSR.  
Seriya Obshchestvennykh Nauk, No 1, Vol 1,  
1968, pp 114-117.  
JPRS 46087

USSR  
Sociological (Contd)

More Socialist Reality of Art Urged, by  
B. Safronov, 7 pp.  
RUSSIAN, np, Krasnaya zvezda, 19 May 1968,  
pp 2-3.  
JPRS 45708

Discharge from Work for Unfitness, by V. I.  
Smolyarchuk, 12 pp.  
RUSSIAN, per, Moscow Sovetskoye Gosudarstvo i  
Pravo, No 5, May 1968, pp 45-52.  
JPRS 46087

Response to Article on Youth Holiday Music, by  
V. Goncharenko, 6 pp.  
RUSSIAN, np, Pravda Ukrainy, 4 Aug 1968, p 3.  
JPRS 46402

Belorussian Teachers' Successes  
Reviewed, by A. Kontsevaya, 5 pp.  
RUSSIAN, np, Sovetskaya Belorussiya,  
Minsk, 1 September 1968, p 1.  
JPRS 46582

Growth and Improvement of Soviet Art Education,  
by Ye. Murtseva, 8 pp.  
RUSSIAN, np, Sovetskaya Kul'tura, 1 Aug 1968,  
pp 2-3.  
JPRS 46369

Work on Improving Secondary General Education  
by M. P. Kashin, 17 pp.  
RUSSIAN, per, Sovetskaya Pedagogika, Feb 1968,  
pp 9-20.  
JPRS 45693

Economic Foundations of Vocational Orientation  
for the Youth, by V. V. Krevnevich, 17 pp.  
RUSSIAN, per, Sovetskaya Pedagogika, Feb 1968,  
pp 44-55.  
JPRS 45693

Problems in the Work of the Higher Pedagogical  
School, by A. Ye. Dmitriyev and P. I.  
Piskasistyy, 17 pp.  
RUSSIAN, per, Sovetskaya Pedagogika, Mar 1968,  
pp 84-95.  
JPRS 45693

USSR  
Sociological (Contd)

The Subject of the Science of Social  
Administration, by G. I. Petrov,  
11 pp.  
RUSSIAN, per, Sovetskoye gosudarstvo  
i pravo, Moscow, June 1968, pp 78-82.  
JPRS 46576

Sociology Investigates Reasons for  
Crimes, by A. A. Gertsenzon, 13 pp.  
RUSSIAN, per, Sovetskoye gosudarstvo  
i pravo, Moscow, No 6, 1968, pp 92-101.  
JPRS 46428

Indoctrinating the Will of School Children,  
by M. G. Vinogradova, 10 pp.  
RUSSIAN, per, Sredneye Spetsial'noye Obraz-  
ovaniye, No 5, 1968, pp 42-45.  
JPRS 46346

Factory Workers' Social Development Discussed,  
by M. Mudrov, I. Rumova, 5 pp.  
RUSSIAN, np, Trud, 25 Jul 1968, p 2.  
JPRS 46355

Better Conditions Urged For Vocational  
Trainees, by V. Sayushev, 6 pp.  
RUSSIAN, np, Trud, Moscow, 17 August  
1968, p 2.  
JPRS 46532

Key Problems in Teacher Training Discussed, 7 pp.  
RUSSIAN, np, Uchitel'skaya Gazeta, 11 July 1968,  
pp 1-2.  
JPRS 46178

Increasing the Effectiveness of Investigations,  
by V. M. Petrov, N. M. Kus'min, 9 pp.  
RUSSIAN, per, Vestnik Vysshay Shkoly, No 5,  
1968, pp 32-37.  
JPRS 46346

Information Center of the Higher School, by  
L. V. Zaletayev, 5 pp.  
RUSSIAN, per, Vestnik Vysshay Shkoly, No 5,  
1968, pp 41-44.  
JPRS 46346

A Course on Atomic Technology in All Agri-  
cultural Higher Schools, by V. V. Rachinskiy,  
7 pp.  
RUSSIAN, per, Vestnik Vysshay Shkoly, No 5,  
1968, pp 77-79.  
JPRS 46346

USSR  
Sociological (Contd)

Protecting USSR Patent Interests Abroad,  
by V. M. Feygel'son, 10 pp.  
RUSSIAN, per, Voprosy Izobretatelstva,  
Moscow, No 7, July 1968, pp 11-16.  
JPRS 46502

Biographic

Biographic Information on Mongolian Personalities,  
11 pp.  
MONGOLIAN, np, Various Sources, 1968.  
JPRS 45836

EASTERN EUROPE

Economic

Congress of Consumer Cooperatives Held in  
Tirana, 13 pp.  
ALBANIAN, rpt, 25 Apr 1968.  
JPRS 45685

Improper Use of Investment Funds  
Condemned, by Andrea Nako,  
Stavri Qiriako, 5 pp.  
ALBANIAN, np, Bashkimi, Tirana,  
25 July 1968, pp 2-3.  
JPRS 46570

Determining Standards, Technical Conditions,  
7 pp.  
ALBANIAN, np, Gazeta Zyrtare, Tirana, No 2,  
29 Feb 1968, pp 15-19.  
JPRS 46445

Trade Deficits and Surpluses Create Problems,  
by Teodor Sterio, 5 pp.  
ALBANIAN, np, Zeri i Popullit, 5 Jul 1968, p 2.  
JPRS 46,325

Train Cadres to Meet Industrial Demands,  
by Vangjel Kreka, Rexhep Shehu, 5 pp.  
ALBANIAN, np, Zeri i Popullit, Tirana,  
23 July 1968, p 3.  
JPRS 46439

Eastern Europe  
Economic (Contd)

Compulsory Insurance Needed in New System,  
by Dimitur Velchev, 10 pp.  
BULGARIAN, per, Finansi i Kredit, Jul 1968,  
pp 3-11.  
JPRS 46,354

Management Urged to Improve Executive Abilities,  
by Docent Zdravko Zlatanov, 8 pp.  
BULGARIAN, np, Ikonomicheski Zhivot, 13 June 1968,  
pp 1, 2, 3.  
JPRS 46,325

General Review Given of Power Development, by  
Andrey Denchev, 7 pp.  
BULGARIAN, np, Ikonomicheski Zhivot, 11 Jul 1968,  
pp 1, 5.  
JPRS 46,325

Socialist States Build Trade Relations,  
by Tsonyu Mutafochiev, 11 pp.  
BULGARIAN, per, Novo Vreme, Sofia,  
No 8, August 1968, pp 116-121.  
JPRS 46514

Automobile Production in Bulgaria Discussed,  
by Vladimir Yotov, Ivan Pankov, 12 pp.  
BULGARIAN, per, Planovo Stopanstvo, No 6, June  
1968, pp 30-40.  
JPRS 46,325

Patent Organization and Tasks Outlined,  
by Vasil Vasilev, 5 pp.  
BULGARIAN, per, Rationalizatsiya i  
standartizatsiya, Sofia, No 6, 1968,  
pp 25-28.  
JPRS 46570

Good Financial Policies Require  
Peoples' Support, by Miroslav Roudelka,  
9 pp.  
CZECH, per, Ekonomicka Revue, Prague,  
June 1968, pp 256-261.  
JPRS 46570

Discussion of Ota Sik Article on Czechoslovak  
Economic Problems, by Jaroslav Suba and  
Lubos Hejl, 15 pp.  
CZECH, np, Hospodarske Noviny, 26 Apr 1968,  
pp 6-9.  
JPRS 45685

Eastern Europe  
Economic (Contd)

Yugoslavia, Poland Might Serve as Examples, by Jan Vojtko, 7 pp.  
CZECH, np, Hospodarske Noviny, 24 May 1968, p 8.  
JPRS 45887

Czech-Soviet Trade Relations Discussed, by Vitezslav Vinklerek, 10 pp.  
CZECH, np, Hospodarske Noviny, June 1968, pp 12-13.  
JPRS 46031

Kubalek Discusses Foreign Economic Relations, by Jaromir Kubalek, 23 pp.  
CZECH, np, Hospodarske Noviny, 9 Aug 1968, Supplement pp 1-8.  
JPRS 46,348

Economic Directive of the Government for 1969, 32 pp.  
CZECH, np, Hospodarske Noviny, 9 Aug 1968, pp 1, 8-11.  
JPRS 46,348

Action Program for Development of Foreign Trade, 27 pp.  
CZECH, per, Noviny Zahranicniho Obchodu, Vol 6, No 25, 19 June 1968, pp 1-16.  
JPRS 45887

Czech Workers Help Consolidate National Economy, 9 pp.  
CZECH, np, Rude Pravo, Prague, 6 September 1968, pp 1, 5.  
JPRS 46570

Agricultural Wages of Czechoslovakia, West Compared, by Josef Kraus, 5 pp.  
CZECH, np, Socialistické Zemedelství, Prague, 19 July 1968, p 5.  
JPRS 46514

New Guidelines for Foreign Trade Described, by Miroslav Maruska, Vladimir Novacek, 17 pp.  
CZECH, per, Zahranicni Obchod, No 5, May 1968, pp 14-18.  
JPRS 46031

Grain Production Has Short, Long-Term Goals, by D. Ebert, 9 pp.  
GERMAN, per, Feldwirtschaft, Jun 1968, pp 248-250.  
JPRS 46,284

Eastern Europe  
Economic (Contd)

Decree Details State Industry Credit Principles, 19 pp.  
GERMAN, per, Gesetzblatt der Deutschen Demokratischen Republik, East Berlin, Part II, No 82, 31 July 1968, pp 653-660.  
JPRS 46570

Trade Fund Levy is Socialist Management Tool, by Hans-Joachim Grasowski, 13 pp.  
GERMAN, per, Der Handel, June 1968, pp 246-260.  
JPRS 46,325

Bloc Trade Agreements With Foreign Countries, 7 pp.  
GERMAN, rpt, Marktinformationen, East Berlin, 22 July 1968, p 3.  
JPRS 46439

Walter Ulbricht Spearheads Economic Development, by Wolfgang Berger, 5 pp.  
GERMAN, np, Neues Deutschland, 6 Jun 1968, p 4.  
JPRS 45887

1967 Standardization Deeds, 1968 Tasks Detailed, by Kurt Wendt, 14 pp.  
GERMAN, per, Standardisierung, May 1968, pp 186-191.  
JPRS 46338

Training of Standardization and Metrology Cadres, by V. M. Ogryakov, 8 pp.  
GERMAN, per, Standardisierung, East Berlin, No 6, 1968, pp 263-266.  
JPRS 46499

Analysis Compares 1960, 1966 Industry Production, by Gunter Hartig, 14 pp.  
GERMAN, per, Statistische Praxis, Vol 23, No 7, Jul 1968, pp 371-375.  
JPRS 46,325

Agricultural Production, Efficiency and Indexes Rise, by Berthold Thoms, Benno Rauch, 15 pp.  
GERMAN, per, Statistische Praxis, Vol 23, No 7, Jul 1968, pp 375-379.  
JPRS 46,325

Pension Measures Cause Rise in Consumption, by Esther Hatterne, 8 pp.  
GERMAN, np, Die Wirtschaft, 15 May 1968, p 10.  
JPRS 45835

Eastern Europe  
Economic (Contd)

Factors Causing Fluctuation in Production Studied, 12 pp.  
GERMAN, np, Die Wirtschaft, 26 June 1968, pp 20-21.  
JPRS 46393

Increase Urged in Machine Tool Industry, by Schuetze, 12 pp.  
GERMAN, per, Die Wirtschaft, Berlin, No 27, 3 July 1968, pp 19-20.  
JPRS 46514

Official Explains Development of Economic System, by Harry Bretschneider, 9 pp.  
GERMAN, np, Die Wirtschaft, 11 July 1968, pp 7-8.  
JPRS 46338

Stability of the East German Mark Evaluated, by Konrad Iammich, 7 pp.  
GERMAN, np, Die Wirtschaft, 11 Jul 1968, p 20.  
JPRS 46,354

New Criteria For Accounting Current Assets, by Gerhard Schmidt, 6 pp.  
GERMAN, np, Die Wirtschaft, East Berlin, 18 July 1968, p 19.  
JPRS 46570

The Trade Association as a New Form of Partnership, by Walter Burian, 5 pp.  
GERMAN, np, Die Wirtschaft, East Berlin, 25 July 1968, p 9.  
JPRS 46439

Shift Work Necessary for Improved Efficiency, by Horst Klar, 5 pp.  
GERMAN, np, Die Wirtschaft, East Berlin, 25 July 1968, p 17.  
JPRS 46439

Price Increases Affect Investment Activity in GDR, 9 pp.  
GERMAN, per, Wochenbericht, West Berlin, 22 August 1968, pp 207-210.  
JPRS 46514

Eastern Europe  
Economic (Contd)

Profit Interest Affects Economic Regulators, by Endre Megyeri, 8 pp.  
HUNGARIAN, np, Figyelo, Budapest, 17 July 1968, p 3.  
JPRS 46514

Foreign Trade Slows in the First Half of 1968, by Sandor Czeitler, 5 pp.  
HUNGARIAN, np, Figyelo, Budapest, 30 July 1968, pp 1, 3.  
JPRS 46439

Foreign-Exchange Credits Promote Export Expansion, by Bela Aramer, Gyorgy Takacs, 6 pp.  
HUNGARIAN, np, Figyelo, 31 July 1968, p 3.  
JPRS 46393

Domestic Trade Increases in First Half 1968, by Gy. H., 6 pp.  
HUNGARIAN, np, Figyelo, Budapest, 7 August 1968, p 2.  
JPRS 46514

Industrial Hopes for Third Five-Year Plan Detailed, by Z. Tatai, 12 pp.  
HUNGARIAN, per, Foldarjzi Kozlemenyek, No 4, 1967, pp 343-349.  
JPRS 46031

Water Management Presents Problems For Future, by Imre Degen, 16 pp.  
HUNGARIAN, per, Hidrologiai Kozlony, Budapest, Vol 48, No 6, June 1968, pp 241-248.  
JPRS 46570

Growth of Pharmaceutical Industry Detailed, by Laszlo Orosz, 8 pp.  
HUNGARIAN, per, Ipargazdasag, Budapest, May 1968, pp 43-46.  
JPRS 46439

Program of Industrial Economy Committee Reviewed, 7 pp.  
HUNGARIAN, per, Ipargazdasag, Budapest, July 1968, pp 11-13.  
JPRS 46421

Eastern Europe  
Economic (Contd)

MAV Goals and Investments for 1968 Outlined,  
by Lajos Hollo, 7 pp.  
HUNGARIAN, per, Kozlekedesi Kozlony, 2 June  
1968, pp 417-419.  
JPRS 46393

Price Supports Initiated for  
Specialized Plants, by Ivan Berend,  
Gabor Gela, 8 pp.  
HUNGARIAN, np, Magyar Mezogazdasag,  
Budapest, 31 July 1968, pp 3-4.  
JPRS 46439

Hungarian Petroleum Products Serve Consumers,  
10 pp.  
HUNGARIAN, per, Muszaki Elet, 30 Nov 1967,  
pp 30-31.  
JPRS 45685

Hungarian National Bank Has New Economic  
Roles, by Ivan Laznerics, 6 pp.  
HUNGARIAN, per, Penzugyi Szemle, May 1968,  
pp 433-436.  
JPRS 46,354

Social Impact of Economic Reform is Examined,  
by Gyula Kallai, 13 pp.  
HUNGARIAN, per, Tarsadalmi Szemle, June 1968,  
pp 6-14.  
JPRS 46393

Early Months of Economic Guidance are Encourag-  
ing, by Jozsef Balint, 13 pp.  
HUNGARIAN, per, Tarsadalmi Szemle, June 1968,  
pp 15-23.  
JPRS 46393

Regional Economic Guidance Tasks Outlined, by  
Gyula Jedlicska, 11 pp.  
HUNGARIAN, per, Tarsadalmi Szemle, June 1968,  
pp 59-66.  
JPRS 46393

Living Standards Are Part of Economic  
Policy, by Janos Keseru, 12 pp.  
HUNGARIAN, per, Tarsadalmi Szemle,  
Budapest, July 1968, pp 3-11.  
JPRS 46439

Eastern Europe  
Economic (Contd)

New Principles Set For Creating Plant  
Fund, by Miroslaw Boguslawski, 7 pp.  
POLISH, np, Gazeta Handlowa, Warsaw,  
2 August 1968, p 2.  
JPRS 46570

Polish Trade with Socialist Countries Analyzed,  
by Tadeusz Perkowski, 8 pp.  
POLISH, per, Handel Zagraniczny, No 5/6, 1968,  
pp 189-192.  
JPRS 46040

Editor Criticizes Views of Liberal Economist,  
by Jerzy Chlopecki, 11 pp.  
POLISH, np, Kierunki, 16 June 1968, p 3.  
JPRS 46341

Domestic Market Supply Problems  
Analyzed, by Ryszard Chelinski,  
20 pp.  
POLISH, per, Nowe Drogi, Warsaw,  
July 1968, pp 16-31.  
JPRS 46439

'Polityka' Criticizes Yugoslav Economic  
Reforms, by Jerzy Kleer, 11 pp.  
POLISH, np, Polityka, No 19, 11 May 1968,  
p 8.  
JPRS 45689

Lechowicz Discusses 1968 Local Industry Goals,  
by Wlodzimierz Lechowicz, 6 pp.  
POLISH, per, Przeglad Drobnej Wytworczosci,  
No 11, Jun 1968, pp 1-3.  
JPRS 46,325

Lechowicz Reviews Small-Scale Industry Results,  
by Wlodzimierz Lechowicz, 10 pp.  
POLISH, per, Przeglad Drobnej Wytworczosci,  
Jul 1968, pp 1-7.  
JPRS 46,325

Review of 1967 Trade With Developing  
Countries, by S. Brooska, 6 pp.  
POLISH, np, Rynki Zagraniczne, Warsaw,  
18 May 1968, p 3.  
JPRS 46439

Austrian-Socialist Bloc Foreign Trade, by  
Celina Tyszko, 6 pp.  
POLISH, np, Rynki Zagraniczne, 20 June 1968, p 3.  
JPRS 46338

Eastern Europe  
Economic (Contd)

Polish 1968 Foreign Trade Exchange Increase, by Stanislaw Brzoska, 5 pp.  
POLISH, np, Rynki Zagraniczne, Warsaw, 10 August 1968, p 3.  
JPRS 46439

Marxist View is Vital to Economic Research, by Seweryn Zurawicki, 5 pp.  
POLISH, np, Trybuna Ludu, 14 June 1968, p 3.  
JPRS 46031

1968 Economic Plan Semiannual Results Detailed, 24 pp.  
POLISH, np, Trybuna Ludu, 24 Jul 1968, pp 4-5.  
JPRS 46,284

Statute on Workers' Self-Managements Discussed, 6 pp.  
POLISH, np, Tribuna Ludu, 8 August 1968, pp 1, 4.  
JPRS 46570

1967 Fuel, Electric Power Consumption Tallied, by Jan Ryszka, 5 pp.  
POLISH, per, Wiedomosci Statystyczne, Jul 1968, p 39.  
JPRS 46,284

Investments in Light, Food Industries Analyzed, by H. Weber, 7 pp.  
POLISH, per, Zagadnienia i Materialy, No 11, 22 May-31 June 1968, pp 23-27.  
JPRS 46040

Changes in State Farm Bonus Fund Presented, by Jan Stapor, 6 pp.  
POLISH, per, Zagadnienia i Materialy, 3-16 Jul 1968, pp 10-14.  
JPRS 46,284

Chemical Industry's 1971-1975 Prospects Described, by Wladyslaw Dudzinski, 12 pp.  
POLISH, np, Zycie Gospodarcze, 7 Jul 1968, pp 1-2.  
JPRS 46,348

Krauss Outlines 1971-1975 Metallurgy Goals, by Krzysztof Krauss, 13 pp.  
POLISH, np, Zycie Gospodarcze, Warsaw, 18 August 1968, pp 1, 4.  
JPRS 46570

Eastern Europe  
Economic (Contd)

Reasons for Poor Balance of Rumanian Foreign Trade Noted, by Mireslaw Dyner, 7 pp.  
POLISH, np, Zycie Gospodarcze, Warsaw, No 35, 1 September 1968, p 6.  
JPRS 46570

Bulgaria, CEMA Cooperation Discussed, by Karol Szwarc, 6 pp.  
POLISH, np, Zycie Gospodarcze, No 36, 8 September 1968, p 5.  
JPRS 46570

Measures to Improve Production Financing Proposed, by Gheorghe Popescu, 13 pp.  
RUMANIAN, per, Finante si Credit, Apr 1968, pp 3-14.  
JPRS 46040

Financial Organs Help Judet People's Councils, by Armand Popper, 6 pp.  
RUMANIAN, per, Finante si Credit, Apr 1968, pp 31-35.  
JPRS 46040

Responsibilities of the Tax Organization Increased, by Costache Iancu, 5 pp.  
RUMANIAN, per, Finante si Credit, Apr 1968, pp 36-39.  
JPRS 46040

Profit Seen as Incentive to Economic Efficiency, by Vasile Gheorghiu, 15 pp.  
RUMANIAN, per, Finante si Credit, No 5, May 1968, pp 14-24.  
JPRS 46040

Perfecting of Investment Financing Needed, by Ioan L. Ciolan, 13 pp.  
RUMANIAN, per, Finante si Credit, No 5, May 1968, pp 25-33.  
JPRS 46040

Inadequate Auditing Practices Examined, by Gheorghe Borcan, 9 pp.  
RUMANIAN, per, Finante si Credit, June 1968, pp 11-16.  
JPRS 46393

Opportunities for Increased Bartering Presented, by Ion Mosoiu, 10 pp.  
RUMANIAN, per, Finante si Credit, June 1968, pp 25-32.  
JPRS 46393



Eastern Europe  
Economic (Contd)

Distribution of National Income Analyzed, by I. Nistor, C. Tulai, 9 pp.  
RUMANIAN, per, Finante si Credit, June 1968, pp 57-62.  
JPRS 46393

New Legislation Establishes Special Fund, by D. Zaharia, 5 pp.  
RUMANIAN, per, Inventii si Inovatii, Jun 1968, pp 201-202.  
JPRS 46348

Benefits of Socialist Democracy Outlined, by Gh. M. Niculescu, 15 pp.  
RUMANIAN, per, Probleme Economice, May 1968, pp 15-27.  
JPRS 46040

Foreign Trade Pursues New Policies in 1968, by St. Minastireanu, 11 pp.  
RUMANIAN, per, Probleme Economice, May 1968, pp 52-60.  
JPRS 46040

Need for Trade with Capitalist Nations Stressed, by Al. Puiu, O. Ciulea, 14 pp.  
RUMANIAN, per, Probleme Economice, May 1968, pp 61-72.  
JPRS 46040

Energy Resources in Rumania Considered, by Martin Bercovici, Al. Szmuk, 12 pp.  
RUMANIAN, per, Probleme Economice, Bucharest, No 7, July 1968, pp 3-13.  
JPRS 46439

Economic Efficiency Growth Seen in Coal Industry, by M. Enache, 14 pp.  
RUMANIAN, per, Probleme Economice, Bucharest, No 7, July 1968, pp 26-37.  
JPRS 46439

Improvement of Export Structure Outlined, by D. Usturoi, 10 pp.  
RUMANIAN, per, Probleme Economice, Bucharest, July 1968, pp 48-56.  
JPRS 46439

Eastern Europe  
Economic (Contd)

Agricultural Growth Depends on State Management, by Gh. Anghel, L. Gutescu, 11 pp.  
RUMANIAN, per, Probleme Economice, Bucharest, July 1968, pp 112-118.  
JPRS 46439

Contributing Factors in Party Leadership Discussed, by Paul Padovan, 12 pp.  
RUMANIAN, per, Revista de Filozofie, Bucharest, July 1968, pp 825-834.  
JPRS 46445

Improved Exploitation of Energy Resources, by M. Bercovici, 12 pp.  
RUMANIAN, np, Viata Economica, 10 May 1968, pp 8-9.  
JPRS 45685

Agricultural Enterprise Price System Criticized, by O. Parpala, 9 pp.  
RUMANIAN, np, Viata Economica, 19 Jul 1968, pp 3, 11.  
JPRS 46,348

Low-Rent Apartment Construction Program Discussed, by M. Locar, 5 pp.  
RUMANIAN, np, Viata Economica, 2 Aug 1968, p 3.  
JPRS 46,354

Electrical Engineering Must Plan For 1970 Demand, by D. F. Lazaroiu, 7 pp.  
RUMANIAN, np, Viata Economica, Bucharest, No 32, 9 August 1968, pp 5, 10.  
JPRS 46570

Reserve Capacity of the Service Industry Identified, by Ch. Sica, C. Alexandrescu, 5 pp.  
RUMANIAN, np, Viata Economica, Bucharest, 16 August 1968, p 3.  
JPRS 46570

Development of Yugoslav Ironworks is Surveyed, by Mile Markic, 7 pp.  
SERBO-CROATIAN, per, Celik, No 12, Apr 1968, pp 25-27.  
JPRS 46,325

Eastern Europe  
Economic (Contd)

Insurance Institute Criticizes, Quits Association, 8 pp.  
SERBO-CROATIAN, per, Ekonomika Politika, Belgrade, No 851, 22-28 July 1968, pp 2-3.  
JPRS 46445

Changes in Credit Policy of April 1968 Examined, by Milan Golijanin, 18 pp.  
SERBO-CROATIAN, per, Finansijske, May-June 1968, pp 281-295.  
JPRS 46,354

Inequities Noted in System of Assessments and Taxes, by Stjepan Kovac, 13 pp.  
SERBO-CROATIAN, per, Finansijske, May-June 1968, pp 304-313.  
JPRS 46338

CEMA Economic, Fiscal Cooperation Reviewed, by Bogdan Ilic, 23 pp.  
SERBO-CROATIAN, per, Finansijske, May-June 1968, pp 323-340.  
JPRS 46338

How Payments Transactions are Handled Within CEMA, by Danilo Aleksic, 7 pp.  
SERBO-CROATIAN, per, Finansijske, May-June 1968, pp 372-376.  
JPRS 46338

Business Results Reflect Slow Economic Activity, by Radoslav Vuksanovic, 19 pp.  
SERBO-CROATIAN, per, Finansijske, Belgrade, No 7-8, July-August 1968, pp 437-452.  
JPRS 46514

Significance of Nutrition to Economy Surveyed, by Josip Stahan, 8 pp.  
SERBO-CROATIAN, per, Hrana i ishrana, Belgrade, May-June 1968, pp 408-413.  
JPRS 46570

New System Urged for Financing health Expansion, by Dusan Andjelkovic, Radmilo Ilic, 18 pp.  
SERBO-CROATIAN, per, Narodno Zdravlje, Jan 1968, pp 5-11.  
JPRS 46363

Eastern Europe  
Economic (Contd)

CEMA Countries Expand Cooperation, by Radovan Vukadinovic, 21 pp.  
SERBO-CROATIAN, per, Nase teme, Zagreb, No 6, June 1968, pp 991-1006.  
JPRS 46514

Liberalized Consumer Credit Policies Advocated, 10 pp.  
SERBO-CROATIAN, per, Nova Trgovina, No 5, 1968, pp 221-225.  
JPRS 46,354

Law on Banks and Credit Transactions Presented, 59 pp.  
SERBO-CROATIAN, per, Nova Trgovina, No 5, May 1968, pp 261-270.  
JPRS 46393

Second Quarter 1968 Shows Promising Economic Trend, by Bozidar Nikolajevic, 8 pp.  
SERBO-CROATIAN, per, Nova Trgovina, Belgrade, No 7-8, July-August 1968, pp 350-353.  
JPRS 46514

Tourist Industry Expects Modest 1968 Growth, by N. B., 10 pp.  
SERBO-CROATIAN, per, Nova Trgovina, Belgrade, No 7-8, July-August 1968, pp 353-356.  
JPRS 46514

Decision Concerning Imports in 1968 of Commodities Whose Importation Is Conditionally Unrestricted\*, 6 pp.  
SERBO-CROATIAN, per, Nova Trgovina, Belgrade, No 7-8, July-August 1968, pp 389-390.  
JPRS 46514

Decision Concerning Establishment and Distribution of the 1968 Global Foreign Exchange Quota to Pay For Imported Raw Materials and Other Producer Goods\*, 5 pp.  
SERBO-CROATIAN, per, Nova Trgovina, Belgrade, No 7-8, July-August 1968, pp 390-391.  
JPRS 46514

**Eastern Europe  
Economic (Contd)**

What Kind of a Director is Needed by the Economy Today?, by Veljko Ivosevic, 6 pp.  
SERBO-CROATIAN, per, Opstina, June 1968, pp 3-8.  
JPRS 46040

Serbia's Current Economic Problems Cited, by Branimir Ikonc, 6 pp.  
SERBO-CROATIAN, per, Opstina, Belgrade, July 1968, pp 3-8.  
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Alleviation of Unemployment Problems Examined, by Budimir Vakasinovic, 5 pp.  
SERBO-CROATIAN, per, Opstina, No 7, July 1968, pp 9-14.  
JPRS 46393

Maritime Shipping Needs Better Business Climate, by Vicko Krstulovic, 12 pp.  
SERBO-CROATIAN, per, Pomorstvo, Nos 3-4, Mar-Apr 1968, pp 70-73.  
JPRS 46338

Yugoslav, Foreign Firms to Cooperate in Ports, by Berigoj Vrsalovic, 11 pp.  
SERBO-CROATIAN, per, Pomorstvo, Nos 3-4, Mar-Apr 1968, pp 88-90.  
JPRS 46338

Separatist Influences Hinder Progress of CEMA, by Radovan Vukadinovic, 26 pp.  
SERBO-CROATIAN, per, Pregled, Jan-Feb 1968, pp 87-106.  
JPRS 46031

Unsynchroized Development of Port Capacities, 8 pp.  
SERBO-CROATIAN, np, Privredni pregled, Belgrade, 11 July 1968, p 10.  
JPRS 46570

Foreign Trade Development Since Reform Analyzed, by Dusan Anakioski, 19 pp.  
SERBO-CROATIAN, per, Problemi Spoljne Trgovine i Konjunktura, Oct-Dec 1967, pp 456-474.  
JPRS 46354

The Tax on Joint Expenditure Funds, 10 pp.  
SERBO-CROATIAN, np, Savremena Praksa, 22 Apr 1968, pp 1, 12.  
JPRS 45685

**Eastern Europe  
Economic (Contd)**

Housing Conditions Still Lag Behind Europe, by Miroslav Popovic, 9 pp.  
SERBO-CROATIAN, per, Socijalna Politika, No 6-7, 20 Jul 1968, pp 33-36.  
JPRS 46354

Development of Bulgarian Nonferrous Metallurgy, by Dusan Vucurovic, Vucic Djokic, 13 pp.  
SERBO-CROATIAN, per, Tehnika, Belgrade, July 1968, pp 1156-1159.  
JPRS 46514

Private Building Replacing Socialized Housing, by Stojka Milojevic, 11 pp.  
SERBO-CROATIAN, per, Komuna, Jun 1968, pp 24-27.  
JPRS 46348

Domestic Transport Reflects 1967 Business Lull, by Mladen Buljevac, 11 pp.  
SERBO-CROATIAN, per, Transport, Jul 1968, pp 3-7.  
JPRS 46325

Problems of Air Transportation Detailed, by Mile Curgus, 5 pp.  
SERBO-CROATIAN, per, Transport, Jul 1968, pp 20-21.  
JPRS 46325

Rapid Concentration of Bank Funds Sought, by Teodor Starcevic, 7 pp.  
SERBO-CROATIAN, per, Vesnik Jugoslavenske Investicione Banke, Apr 1968, pp 1-3.  
JPRS 46031

Complaints on Clearing Accounts Studied, by Vladimir Lasic, 6 pp.  
SERBO-CROATIAN, np, Vjesnik u Srijedu, 12 June 1968, p 4.  
JPRS 46031

Savings from Military Newspaper Integration. Fewer Free Copies, by Milan Duvancic, 8 pp.  
SERBO-CROATIAN, per, Vojnoekonomski Pregled, May 1968, pp 393-399.  
JPRS 45835

Eastern Europe  
Political

Socialism Built by Army and Party Together, by  
Hito Cako, 13 pp.  
ALBANIAN, per, Rruga e Partise, June 1968,  
pp 15-23.  
JPRS 46185

Party Candidates Need Ideological Education, by  
Jorgji Sota, 14 pp.  
ALBANIAN, per, Rruga e Partise, June 1968, pp 39-  
47.  
JPRS 46185

Creativity Among the Masses to be Encouraged,  
by Petro Kito, 12 pp.  
ALBANIAN, per, Rruga e Partise, June 1968,  
pp 48-55.  
JPRS 46185

Hoxha Criticizes Remnants of Bourgeois Feeling,  
5 pp.  
ALBANIAN, np, Zeri i Popullit, 27 Apr 1968, p 2.  
JPRS 46038

Party Chief Hoxha Publishes Revolutionary History,  
by Ndreçi Plasari, 7 pp.  
ALBANIAN, np, Zeri i Popullit, 4 July 1968, pp 2-3.  
JPRS 46341

Western World Conducts Propaganda in Bulgaria,  
by G. Strugarev, 11 pp.  
BULGARIAN, per, Arneyski Pregled, No 6, Jun  
1968, pp 122-127.  
JPRS 46,279

Opponents of Party Leadership in Culture Criticized  
by Krum Vasilev, 11 pp.  
BULGARIAN, per, Novo Vreme, No 6, 1968, pp 11-19.  
JPRS 46038

Spacek Calls for Party Reform, Democratization,  
by Josef Spacek, 11 pp.  
CZECH, per, Nová Mysl, No 7, July 1968, pp 807-  
814.  
JPRS 46417

Jiri Seydler of Czech Periodical Reporter  
Interviews Soviet Writers Polevoy and Simonov  
about Soviet Stand in Regard to Czech Political  
Development, 9 pp.  
CZECH, per, Reporter, No 19, 8-15 May 1968,  
pp 17-19.  
JPRS 45689

Eastern Europe  
Political (Contd)

Czechoslovakia's Own Path to Socialism, by  
J. Morrian, 8 pp.  
DUTCH, per, Politiek en Cultuur, No 5, May 1968,  
pp 215-223.  
JPRS 45838

Poland Needs Revolutionary Communist Party,  
12 pp.  
ENGLISH, nr, NCNA, 21 Aug 1968.  
JPRS 46417

Socialist Ideology, Economic Rationality  
Discussed, by Rolf Sieber, Guenter Soeder,  
14 pp.  
GERMAN, per, Deutsche Zeitschrift fuer Philosophie,  
No 7, July 1968, pp 787-798.  
JPRS 46341

Convergence Theory Labelled Bourgeois Ideology,  
by E. Bregel, 8 pp.  
GERMAN, per, Einheit, July 1968, pp 901-906.  
JPRS 46417

Dickel Praises People's Police on Anniversary,  
by F. Dickel, 8 pp.  
GERMAN, per, Militaertechnik, July 1968, pp 290-  
293.  
JPRS 46445

National Planning Office Reorganizes,  
by Gyorgy Kalman, 5 pp.  
HUNGARIAN, np, Figyelo, Budapest,  
7 August 1968, p 3.  
JPRS 46514

Strong Socialist Plant Democracy Discussed, by  
Marton Suza, 5 pp.  
HUNGARIAN, per, Hunka, July 1968, pp 6-7.  
JPRS 46417

Democracy, Class Struggle Build Socialism, by  
Gyula Bognar, 6 pp.  
HUNGARIAN, per, Partelet, June 1968, pp 25-29.  
JPRS 46,244

Activities of Workers' Guard Detailed, by  
Imre Viszlo, 5 pp.  
HUNGARIAN, per, Partelet, No 7, July 1968,  
pp 6-9.  
JPRS 46185

Eastern Europe  
Political (Contd)

Czechoslovakia Ripe for 'Genuine' Socialist Democracy, 7 pp.  
ITALIAN, per, Bandiera Rossa, No 10, 15 May 1968, p 3.  
JPRS 45838

Fourth Union of Socialist Youth Conference, 9 pp.  
POLISH, per, Nowe Drogi, No 3, Mar 1968, pp 61-68.  
JPRS 45689

Protection Against Unjust Press Criticism Needed, by Bogdan Michalski, 5 pp.  
POLISH, np, Przegląd i Życie, 11 Aug 1968, p 3.  
JPRS 46417

Excerpts Given of Strzelecki Speech at Plenum, 5 pp.  
POLISH, np, Rada Narodowa, 29 June 1968, p 3-4.  
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PZPR National Councils Proposals Discussed, 14 pp.  
POLISH, np, Rada Narodowa, 29 June 1968, pp 8-12.  
JPRS 46363

Democratic Central Committee Issues Resolution, 11 pp.  
POLISH, per, Tygodnik Demokratyczny, 9 June 1968, p 3.  
JPRS 46,244

Party Support Seen Essential to Worker Autonomy, by Juliusz Wacławek, 5 pp.  
POLISH, np, Trybuna Ludu, 19 June 1968, pp 3, 4.  
JPRS 46341

Cadre Policy at Ministerial Institutes Condemned, by Juliusz Wacławek, 5 pp.  
POLISH, np, Trybuna Ludu, Warsaw, 9 August 1968, p 5.  
JPRS 46514

Jablonski Praises Polish Internationalism, by Henry Jablonski, 7 pp.  
POLISH, np, Walka Miedzych, 7 July 1968, pp 4, 5.  
JPRS 46445

Polemic Develops Over History Book by Czaplinski, by Andrzej Nowicki, 17 pp.  
POLISH, per, Wspolczesnosc, 8-12 May 1968, p 10.  
JPRS 46,244

Eastern Europe  
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Polemic Arises Over Concept of Nationalism, 25 pp.  
POLISH, per, Wspolczesnosc, Warsaw, 15-18 June 1968, p 5; No 14, 3-16 July 1968, pp 4, 5, 6.  
JPRS 46445

Series of Articles Discuss Future of France, by Ignacy Krasicki, 7 pp.  
POLISH, np, Zycie Warszawy, 28 June 1968, pp 3,4.  
JPRS 46185

Theses Insufficiently Define Administration Role, by Leopold Zabkiewicz, 5 pp.  
POLISH, np, Zycie Warszawy, Warsaw, 9 August 1968, p 3.  
JPRS 46570

Situation of Modern Socialist Youth Discussed, by Ion Iliescu, C. Ionescu-Gilian, 6 pp.  
RUMANIAN, per, Amfiteatru, No 31, July 1968, p 518.  
JPRS 46341

Two Centuries of Czechoslovak-Rumanian Relations, by Viorica Moisuc, 13 pp.  
RUMANIAN, rpt, Analele Institutului de Studii Istorice si Social-Politice de pe linga CC al PCR, May 1968, pp 249-250.  
JPRS 46038

Foreign Policy Based on Full Equality of Nations, by Aurel Cristescu, 8 pp.  
RUMANIAN, per, Lumea, No 26, 20 June 1968, pp 18-20.  
JPRS 46038

Eastern, Western Europe Rapprochement Seen, by Alexandru Compeanu, 11 pp.  
RUMANIAN, per, Lupta de Clasa, Bucharest, June 1968, pp 52-62.  
JPRS 46445

Rumanian Chauffeurs Abroad Charged with Fraud, by Aurel Codranu, Mihai Cernat, 5 pp.  
RUMANIAN, np, Munca, No 6417, 2 July 1968, pp 1-2.  
JPRS 46185

Reactions to Communist Youth Activities Polled, by Paul Diaconescu, Natalia Stanou, 7 pp.  
RUMANIAN, np, Scinteia, 13 Aug 1968, pp 1, 5.  
JPRS 46417

**Eastern Europe  
Political (Contd)**

International Relations of Union of Communist Youth Outlined, by I. Iliescu, 7 pp.  
RUMANIAN, np, Scinteia Tineretului, 18 Apr 1968, pp 1 & 6.  
JPRS 45689

Opshtina Organization in Croatia Discussed, by Arunoslav Simat, 10 pp.  
SERBO-CROATIAN, per, opshtina, July 1968, pp 20-28.  
JPRS 46417

League of Communists Membership Analyzed, 5 pp.  
SERBO-CROATIAN, np, Vjesnik, 18 Jul 1968, p 7.  
JPRS 46,244

**Military**

Military Missiles (Soviet), by O. Svoboda.  
CZECH, per, Letectvi-Kosmonautika, No 26, 1967, pp 23-24.  
\*FTD-HT-23-836-68

General Officers Discuss Military Doctrine, 11 pp.  
CZECH, per, A Revue, No 10, 17 May 1968, pp 12-18.  
JPRS 46,279

Interview Justifies Size of Military Budget, by Vojtech Srovnal, 9 pp.  
CZECH, per, A Revue, No 10, 17 May 1968, pp 32-39.  
JPRS 46,279

General Pepich Interviewed on Internal Situation, by F. Dobes, A. Zrustek, 9 pp.  
CZECH, per, A Revue, No 12, June 1968, pp 50-58.  
JPRS 46,279

Frontier Guards Stand Ready to Defend Nation, by J. Michal, 5 pp.  
CZECH, per, A Revue, No 12, Jun 1968, pp 60-65.  
JPRS 46,279

Military Mass Communications Media Discussed, 6 pp.  
CZECH, per, A Revue, No 13, June 1968, pp 82-86.  
JPRS 46363

**Eastern Europe  
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National Defense Minister Interviewed, 10 pp.  
CZECH, np, A Revue, 12 July 1968, pp 60-67.  
JPRS 46417

History of Small Arms Export Recounted, by Jiri Blecha, 5 pp.  
CZECH, per, Zapisnik, No 14, 13 July 1968, pp 13-15.  
JPRS 46341

Premier Issues Decree on Military Decorations, 12 pp.  
GERMAN, per, Gesetzblatt der Deutschen Demokratischen Republik, 31 July 1968, pp 645-649.  
JPRS 46363

Why Not Lighter and Cheaper Battle Tanks?, by Hans-Joachim Jung.  
GERMAN, per, Kampftruppen, No 6, 1967, p 174.  
ACSI J-4881  
FSTC HT-23-150-68

High Speed Diesel Engines for Land and Marine Use, by U. Bayer.  
GERMAN, per, Militartechnik, No 1, pp 37-38.  
ACSI J-4880  
FSTC HT-23-151-68

The Significance of Armored Recovery Vehicles Within the System of Armored Combat Readiness, by R. Zimmermann.  
GERMAN, per, Militartechnik, No 10, 1967, pp 446-448.  
ACSI J-4882  
FSTC HT-23-148-68

Armored Personnel Carriers of the Czechoslovak Peoples' Army, by R. Munzar.  
GERMAN, per, Militartechnik, No 11, 1967, pp 518-519.  
ACSI J-4961  
FSTC HT-23-183-68

GDR Supports 18-Nation Disarmament Committee, 5 pp.  
GERMAN, np, Neues Deutschland, 21 Aug 1968, p 5.  
JPRS 46417

The Army Technical Specialist School, by Friedrich Scherg.  
GERMAN, per, Truppendienst, No 3, 1966, pp 228-230.  
ACSI J-4878  
FSTC HT-23-145-68

Eastern Europe  
Military (Contd)

The Joint German-American Development Heavy Tank 70.

GERMAN, per, Wehr Und Wirtschaft, Vol 11, No 11, pp 574-575.  
ACSI J-4883  
FSTC HT-23-149-68

Preventive Measures in Civil Defense Discussed, by Laszlo Bartha, 6 pp.  
HUNGARIAN, np, Polgari Vedelem, 27 July 1968, pp 6-7.  
JPRS 46341

Relocation Planned in the Event of Enemy Attack, 5 pp.  
HUNGARIAN, per, Polgari Vedelem, Budapest, No 15, 10 Aug 1968, pp 12-13.  
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Sociological

Foreign Literature Criteria Established, by Ismail Kadare, 6 pp.  
ALBANIAN, np, Drita, 19 May 1968, p 2.  
JPRS 46185

Official Discusses Educational Improvements, by Hasan Duma, 5 pp.  
ALBANIAN, np, Zeri i Popullit, 25 May 1968, p 3.  
JPRS 46038

New Regulation on Appointment of Teachers, 24 pp.  
BULGARIAN, per, Durshaven Vestnik, No 48, 21 June 1968, pp 2-7.  
JPRS 46038

Bulgaria Initiates Demographic Studies, by Khr. Petkov, 10 pp.  
BULGARIAN, per, Abigiena i Zdravopasvane, No 2, Mar/Apr 1968, pp 85-94.  
JPRS 46038

Problems Caused by Migration from Rural Areas, by Vasil Todorov, 12 pp.  
BULGARIAN, per, Novo Vreme, No 6, 1968, pp 37-47.  
JPRS 46038

Eastern Europe  
Sociological (Contd)

Regulations Given for Licensing Trade-marks, by Vladimir Vrana, 5 pp.  
BULGARIAN, per, Rationalizatsiya i Standartizatsiya, Sofia, No 6, 1968, pp 27-29.  
JPRS 46570

New Law on Judicial Rehabilitation Presented, 20 pp.  
CZECH, np, Sbirka Zakonu CSSR, Part 26, 28 June 1968, pp 230-236.  
JPRS 46341

World Law Cited to Bolster GDR Access Position, by Peter Alfons Steiniger, 5 pp.  
GERMAN, per, Aussenpolitische Korrespondenz, 1 Jul 1968, pp 219-220.  
JPRS 46,279

Decree Details Delivery Terms for Defense Needs, 38 pp.  
GERMAN, per, Gesetzblatt der Deutschen Demokratischen Republik, No 63, Part 2, 28 June 1968, pp 407-422.  
JPRS 46185

Living Conditions Improve for Gypsy Population, by Sandor Mihok, 6 pp.  
HUNGARIAN, per, Partelet, June 1968, pp 71-74.  
JPRS 46,244

Technocracy As Viewed by a "Technocrat", by Tibor Vamos, 23 pp.  
HUNGARIAN, per, Tarsadalmi Szemle, No 6, June 1968, pp 32-43.  
JPRS 46,244

Problems of University Life Discussed, by Bela Kopecsi, 11 pp.  
HUNGARIAN, per, Tarsadalmi Szemle, No 7, Jul 1968, pp 12-19.  
JPRS 46185

Merits of 'World Outlook' Course Debated, by Eva Katona, 9 pp.  
HUNGARIAN, per, Tarsadalmi Szemle, No 7, July 1968, pp 62-67.  
JPRS 46185

Workers Autonomy Advantages, Disadvantages Listed, by Henryk Nagdziaik, 16 pp.  
POLISH, per, Nowe Drogi, Warsaw, July 1968, pp 3-15.  
JPRS 46439

Eastern Europe  
Sociological (Contd)

Aspects of Admission to Higher Studies Examined, by Roman Mistewicz, 15 pp.  
POLISH, per, Nowe Dregi, Jul 1968, pp 32-44.  
JPRS 46,244

Pajestka Defends Views on Cultural Model, by Jozef Pajestka, 12 pp.  
POLISH, np, Polityka, 6 June 1968, p 3, 11.  
JPRS 46341

People's Councils Considered Unsatisfactory, by Tadeusz Kolodziejczyk, 8 pp.  
POLISH, np, Polityka, No 26, 29 June 1968, p 4.  
JPRS 46341

Teacher's Problems in Civic Education Discussed, by Daniel Fikus, 11 pp.  
POLISH, np, Polityka, No 26, 29 June 1968, p 5.  
JPRS 46341

Scandalous Behavior of Craftsmen Attacked, by Jerry Raminger, 5 pp.  
POLISH, np, Prawo i Zycie, 14 July 1968, p 5.  
JPRS 46341

State of Polish Philosophy Discussed, by Tadeusz M. Jaroszewski, 20 pp.  
POLISH, np, Trybuna Ludu, 2 June 1968, pp 3-5;  
4 June 1968, pp 3-4.  
JPRS 45835

Continuation of Discussion on Polish Philosophy, 6 pp.  
POLISH, np, Trybuna Ludu, 6 June 1968, p 3.  
JPRS 45835

'Structural Changes' are Class Transformations, by Wlodzimierz Wesolowski, 6 pp.  
POLISH, np, Trybuna Ludu, 18 June 1968, pp 3, 4.  
JPRS 46031

State Publishing House Corrects Mistakes, 5 pp.  
POLISH, np, Zycie Warszawy, 7 June 1968, pp 3, 4.  
JPRS 46038

Problems of Filmmaking and Distribution Discussed, 21 pp.  
RUMANIAN, np, Contemporanul, 28 Jun 1968, pp 8-9.  
JPRS 46,244

Eastern Europe  
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Professor Studies Urbanization in Rumania, by Niron Constantinescu, 11 pp.  
RUMANIAN, per, Contemporanul, No 32, 9 Aug 1968, p 4.  
JPRS 46363

Survey Attempts Causal Study of Birth Rate, 5 pp.  
RUMANIAN, per, Igiena, No 6, June 1968, pp 336-340.  
JPRS 46,244

Sport Clubs Charged with Financial Irregularities, by Gh. Cioreanu, 5 pp.  
RUMANIAN, np, Munca, 26 July 1968, pp 1, 3.  
JPRS 46363

Population Breakdown by Counties Discussed, by M. Bulgaru, 5 pp.  
RUMANIAN, per, Natura-Geografie/Geologie, No 3, 1968, pp 10-14.  
JPRS 46,244

Education Receives New Developmental Program, by Ion Teoreanu, 15 pp.  
RUMANIAN, per, Lupta de Clasa, Bucharest, June 1968, pp 3-15.  
JPRS 46445

Excess General Education Expenditures Must Be Curtailed, by Victor Grigorescu, 9 pp.  
RUMANIAN, per, Revista de Pedagogie, No 4, Apr 1968, pp 92-97.  
JPRS 45689

Statistics on Educational System Presented, by I. Ferenbac, M. Firicica, 15 pp.  
RUMANIAN, per, Revista de Statistica, Apr 1968, pp 3-12.  
JPRS 46038

Postgraduate Courses Needed for Rapid Scientific Development, 5 pp.  
RUMANIAN, np, Stintaia, 2 June 1968, p 4.  
JPRS 45835

Crime Laws Noted as Wear Deterrence to Embeasement, by George-Radu Chirovici, 7 pp.  
RUMANIAN, np, Stintaia, No 7751, 2 July 1968, pp 1-2.  
JPRS 46185



Eastern Europe  
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Lack of Professional Ethics at Clinic Discussed,  
by I. Diaconescu, 8 pp.  
RUMANIAN, np, Scinteia, 24 July 1968, p 5.  
JPRS 46417

Philosophy Guided by the Party Spirit, by  
Calina Mare, 6 pp.  
RUMANIAN, np, Tribuna, No 23, 6 June 1968, pp 1-2.  
JPRS 46038

Non-Attendance Education Has Difficulties, by  
M. Popa, 5 pp.  
RUMANIAN, np, Viata Studenteasca, 24 July 1968,  
p 5.  
JPRS 46363

Employment of Faculty-Trained Specialists, by  
Miroslav Zivkovic, 15 pp.  
SERBO-CROATIAN, per, Gledista, May 1968, pp 839-  
850.  
JPRS 45835

Internal Migrations of the Population of Yugo-  
slavia, by Dusan Breznik, 18 pp.  
SERBO-CROATIAN, per, Jugoslavenski Pregled, No 1,  
Jan 1968, pp 1-5.  
JPRS 45835

Welfare Institutions Need Improvement, Aid,  
by Dusan Lakicevic, 8 pp.  
SERBO-CROATIAN, per, Socijalna Politika, No 6-7,  
20 July 1968, pp 17-20.  
JPRS 46341

Kosmet Vitally Needs Basic Health Protection,  
by Bosidar Colakovic, 9 pp.  
SERBO-CROATIAN, per, Socijalna Politika, No 6-7,  
20 July 1968, pp 36-40.  
JPRS 46341

Serbian Welfare Institute Works on Contract,  
by Miroslava Veljic, 6 pp.  
SERBO-CROATIAN, per, Socijalna Politika, No 6-7,  
20 July 1968, pp 49-50.  
JPRS 46341

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Need for Oil Self-Sufficiency Stressed, by  
Alberto Pozo, 7 pp.  
SPANISH, per, Bohemia, 3 May 1968, pp 20-24,  
28-31, 90.  
JPRS 45719

Political

Knud Jespersen Comments on Czech Invasion, by  
Knud Jespersen, 7 pp.  
DANISH, np, Land og Folk, 25-26 Aug 1968, p 5.  
JPRS 46387

Debate on Alienation and Economism, 12 pp.  
DUTCH, np, Rode Tribune, Jan-Feb 1968, pp 9, 10;  
Feb-Mar 1968, pp 2, 12; Mar-Apr 1968, pp 11, 12.  
JPRS 46197

Finnish CP Leader Views Responsibilities of Party,  
by Ville Pessi, 5 pp.  
FINNISH, np, Kansan Uutiset, 21 June 1968, p 4.  
JPRS 46197

French CP Journal Calls For a United  
Opposition, 12 pp.  
FRENCH, per, Cahiers du Communisme,  
Paris, June-July 1968, pp 4-13,  
JPRS 46515

French CP Stands During Crisis Reviewed,  
58 pp.  
FRENCH, per, Cahiers du Communisme,  
Paris, June-July 1968, pp 14-53.  
JPRS 46515

Leftism Attacked by French CP Writer,  
by Leo Figueres, 19 pp.  
FRENCH, per, Cahiers du Communisme,  
Paris, June-July 1968, pp 68-83.  
JPRS 46515

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Acting CP Chairman Explains Party  
Attitude, by Marc Drumaux, 6 pp.  
FRENCH, np, Le Drapeau Rouge, Brussels,  
30 August 1968, p 5.  
JPRS 46515

French CP Writers Vow Fight Against Leftism,  
by Francois Billoux, Paul Laurent, 10 pp.  
FRENCH, np, France Nouvelle, 31 July 1968, p 3,  
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JPRS 46387

French CP Writer Says Communism Will Endure,  
by Francois Billeux, 5 pp.  
FRENCH, np, France Nouvelle, 7 Aug 1968, p 3.  
JPRS 46387

French CP View of Sofia Youth Festival,  
by Francois Hilsum, 5 pp.  
FRENCH, np, L'Humanite, Paris,  
16 August 1968, pp 1, 4.  
JPRS 46515

Policy Statement Issued by Unir-Debat, by  
Rene Garraud, 5 pp.  
FRENCH, np, Unir-Debat, 10 July - 10 Aug 1968,  
pp 2, 3.  
JPRS 46387

French CP Seeks Stronger Leadership, by  
M. Millet, 6 pp.  
FRENCH, np, Unir-Debat, 10 July-10 Aug 1968,  
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JPRS 46387

French Left Needs Revitalization, by  
J. Courtois, 6 pp.  
FRENCH, np, Unir-Debat, 10 July-10 Aug 1968,  
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JPRS 46387

Swiss Communist State Position on  
Czech Crisis, 5 pp.  
FRENCH, per, Voix Ouvriere, Geneva,  
22, 23, 24, 26 August 1968, p 1.  
JPRS 46515

Labor Party (Communist) Prepares For  
Ninth Congress, 11 pp.  
FRENCH, per, Voix Ouvriere, Geneva,  
27 August, 4 September 1968, p 3.  
JPRS 46515

Western Europe  
Political (Contd)

Swiss CP Reaffirms Their Position  
on Czech Crisis, by Franz Dubi,  
6 pp.  
FRENCH, np, Voix Ouvriere, Geneva,  
11 September 1968, p 1.  
JPRS 46575

Belgian CP Comments on Student  
Disorders, 56 pp.  
FRENCH, per, La Voix du Peuple,  
Brussels  
JPRS 46575

Belgian CP Denounces Insidious Neo-Revisionism,  
14 pp.  
FRENCH, per, La Voix du Peuple, No 23, 7 June  
1968, pp 5, 8.  
JPRS 45838

Marxist-Leninists Criticize West  
German CP, 14 pp.  
GERMAN, per, Roter Morgen, Hamburg,  
August 1968, pp 1-12.  
JPRS 46515

Marxist-Leninist Theories Create Class Revolu-  
tion, 9 pp.  
ITALIAN, per, Lavoro Politico, May 1968, pp 1-5.  
JPRS 46387

Italian CP Heads Marxist-Leninist Struggle,  
21 pp.  
ITALIAN, per, Lavoro Politico, May 1968, pp 6-12.  
JPRS 46387

Marxists-Leninists: What Unity?, 11 pp.  
ITALIAN, per, Lavoro Politico, No 5-6,  
Mar-Apr, 1968, pp 41-43  
JPRS 45838

Italian CP Leader Analyzes French Situation in  
Interview, by Luigi Longo, 16 pp.  
ITALIAN, np, Rinascita, No 24, 14 June 1968,  
pp 3-6.  
JPRS 45838

Ingrao Warns of Dangers in Czech Democratization,  
by Pietro Ingrao, 7 pp.  
ITALIAN, np, Rinascita, 2 Aug 1968, pp 1-2.  
JPRS 46387

Western Europe  
Political (Contd)

Reasons For PCI Support of Czech Communists, 11 pp.  
ITALIAN, np, Rinascita, Rome, 30 August 1968, pp 1-5.  
JPRS 46515

Writer Urges Liberalization in Communist Ties, by Achille Occhetto, 9 pp.  
ITALIAN, np, Rinascita, Rome, 6 September 1968, pp 3, 4.  
JPRS 46575

Luigi Longo Comments on Czech Situation, 6 pp.  
ITALIAN, np, Rinascita, Rome, 13 September 1968, pp 3, 4.  
JPRS 46575

Developments In, Lessons Learned From Czech Crisis, 12 pp.  
ITALIAN, np, L'Unita, Rome, 8 September 1968, p 14.  
JPRS 46515

Past, Present Marxist Philosophy Outlined, by Kare Selnes, 48 pp.  
NORWEGIAN, per, Friheten, Various Issues, Nov 1967.  
JPRS 46387

The Current Situation in Spain and the Communists, by Santiago Carrillo, 7 pp.  
SPANISH, np, Espana Republicana, 1 July 1968, pp 3, 12.  
JPRS 46387

Spanish Communist Party Urges Leftist Unity, 9 pp.  
SPANISH, np, Espana Republicana, 15 July 1968, pp 3, 4.  
JPRS 46387

Western Europe  
Geographic

The Plain of Reeds - Table of Contents and Bibliography by Victor Delahaye.  
FRENCH, bk, La Plaine des Joncs, 1928, pp 243-248.  
ACSI J-5217  
AMS-13-68

AFRICA

Economic

Financing the First Economic and Social Development Plan, 6 pp.  
FRENCH, per, L'Afrique, Mar-Apr 1968, pp 28-29.  
JPRS 45720

Forest Economy in the Kinguele Region, 5 pp.  
FRENCH, per, L'Afrique Actuelle, Mar-Apr 1968, pp 16-18.  
JPRS 45720

Implementation of the Five-Year Plan, 1966-1970, 10 pp.  
FRENCH, per, L'Afrique Actuelle, Mar-Apr 1968, pp 25-27.  
JPRS 45720

Industrial Projects Reviewed, 11 pp.  
FRENCH, per, Afrique Service, 15 Feb 1968, pp A-I.  
JPRS 45720

Statistics on Production in 1967, 5 pp.  
FRENCH, per, Bulletin de l'Afrique Noire, 24 Apr 1968, pp 10191-10193.  
JPRS 45720

Chadian Trade Statistics for 1967 Given, 5 pp.  
FRENCH, per, Bulletin de l'Afrique Noire, 17 Jul 1968, pp 10389-10391.  
JPRS 46,357

Economy Shows Slow But Steady Improvement, 6 pp.  
FRENCH, per, Le Commerce du Levant, July 1968, pp 74-75.  
JPRS 46392

Africa  
Economic (Contd)

Problems of Congolese Businessmen, by Louis-Paul Eyenga, 5 pp.  
FRENCH, np, L'Etoile, 13-15 Apr 1968, pp 7, 12.  
JPRS 45720

Survey of Economic Development in Senegal, 38 pp.  
FRENCH, per, Europe France Outremer, No 458, Mar 1968.  
JPRS 45687

Characteristics of Second Plan, 1969-1972, by Moktar Ould Haiba, 6 pp.  
FRENCH, per, Europe France Outre-Mer, Apr-May 1968, pp 30-32.  
JPRS 46,320

Lag in Progress of Rural Sector Noted, by Moktar Ould Haiba, 5 pp.  
FRENCH, per, Europe France Outre-Mer, Apr-May 1968, pp 43-46.  
JPRS 46,320

Economic Recovery and Prospects, 5 pp.  
FRENCH, np, Informations d'Outre-Mer, 17 Apr 1968, pp 5-6 and 24 Apr 1968, pp 5-7.  
JPRS 45720

Setting Up of UEAC Not Expected to Curtail Industrialization, 5 pp.  
FRENCH, np, Le Moniteur Africain, 18 Apr 1968, p 6.  
JPRS 45720

Massive 1968 Investment Aid Reviewed, 6 pp.  
FRENCH, np, Le Moniteur Africain, 2 May 1968, pp 6, 12.  
JPRS 45720

Swiss Trade Relations with French-Speaking Africa, 7 pp.  
FRENCH, np, Le Moniteur Africain, 2 May 1968, pp 7-8.  
JPRS 45720

Economy Develops Slowly Despite Foreign Aid, 7 pp.  
FRENCH, np, Le Moniteur Africain, 1 Aug 1968, p 4.  
JPRS 46278

Africa  
Economic (Contd)

Basic Economic Reform Doctrines Set Forth, 7 pp.  
FRENCH, np, La Republique, 1 Aug 1968, p 3.  
JPRS 46392

First Half 1968 Industrial Production Survey, 6 pp.  
FRENCH, np, La Vie Economique, 28 June 1968, pp 1, 3.  
JPRS 46278

Political

Student Congress Ends, Supports Government, 7 pp.  
FRENCH, np, L'Action, Tunis, 18 Aug 1968, p 2.  
JPRS 46526

President Bourguiba's Pragmatism in Tunisia, by Jean-Philippe Caudron, 8 pp.  
FRENCH, per, Croissance des Jeunes Nations, May 1968, pp 5-8.  
JPRS 46278

Nationalizations Strengthen State Capitalism, by G. Viratelle, 6 pp.  
FRENCH, per, Croissance des Jeunes Nations, July-Aug 1968, pp 31-32.  
JPRS 46278

President Senghor Addresses UPS National Council, 10 pp.  
FRENCH, np, Dakar-Matin, 22 July 1968, p 3.  
JPRS 46278

Morocco -- The Left and the Middle East Conflict, by Abderrashman Bouabid, 9 pp.  
FRENCH, per, Democratie Nouvelle, Mar 1968, pp 57-61.  
JPRS 45720

The Union of Central African States Assessed, by Theophile Lukusa, 60 pp.  
FRENCH, per, Etudes Congolaises, Apr-June 1968, pp 68-119.  
JPRS 46278

Africa  
Political (Contd)

Information on Mauritanian People's Party, by Robert Taton, 5 pp.  
FRENCH, per, Europe France Outre-Mer, Apr-May 1968, pp 19-21.  
JPRS 46,320

President Discusses Role of Motion Pictures, by President Toure, 20 pp.  
FRENCH, per, Horoya, 16-17 June 1968, pp 1-4.  
JPRS 46278

Mauritania -- Nation in Formation -- Is Surveyed, by Monique Sordet, Earnest Milcent, 9 pp.  
FRENCH, per, Jeune Afrique, No 386-387, 27 May-9 Jun 1968, pp 27-31.  
JPRS 46,357

Government, Labor, Management Reach Agreement, 5 pp.  
FRENCH, np, Le Moniteur Africain, 20 June 1968, p 3.  
JPRS 46392

Inaugural Speech Given at Congress of African Women, 5 pp.  
FRENCH, np, El Moudjahid, 29 July 1968, p 3.  
JPRS 46392

Ben Salah Addresses Students at Monastir, 6 pp.  
FRENCH, np, La Presse de Tunisie, Tunis, 12-13 Aug 1968, p 4.  
JPRS 46526

Similarities and Differences in African Politics, by Tatiana Yannopoulos, 15 pp.  
FRENCH, per, Revue Francaise d'Etudes Politiques Africaines, Apr 1968, pp 32-47.  
JPRS 45720

Historical Survey of Political Parties, 15 pp.  
FRENCH, per, Revue Francaise d'Etudes Politiques Africaines, Apr 1968, pp 78, 82-94.  
JPRS 45720

Mayor as Judiciary Police Officer is Analyzed, by Gilbert Mangin, 11 pp.  
FRENCH, per, Revue Juridique et Politique, Apr-Jun 1968, pp 527-536.  
JPRS 46,357

Africa  
Political (Contd)

"Scientific Socialism" in the Congo-Brazzaville, by Albert Godefroid, 9 pp.  
FRENCH, per, La Tribune Africaine, 27 Jan 1968, p 7; 28-29 Jan 1968, p 2; 1 Feb 1968, pp 4,6.  
JPRS 45720

Full Text of Equatorial Guines's Constitution, 16 pp.  
SPANISH, np, ABC, 28 July 1968, pp 31-34.  
JPRS 46278

Sociological

Bourguiba Explains His Philosophy of Development, by Habib Bourguiba, 9 pp.  
FRENCH, np, L'Action, 13 July 1968, p 5.  
JPRS 46392

Population Census, Urbanization of Madagascar, by J. Poitier, 28 pp.  
FRENCH, per, Civilisations, Vol 18, No 1, 1968, pp 80-109.  
JPRS 46278

Tribal Dispute in Kasai-Oriental Reported, 9 pp.  
FRENCH, np, Le courrier d'Afrique, 27 Jun 1968, pp 1, 5; 31 Jul 1968, pp 1, 5; 5 Aug 1968, pp 1, 3, 4.  
JPRS 46,357

Education Minister Speaks on University Reform, by Assane Seck, 9 pp.  
FRENCH, np, Dakar-Matin, 22 July 1968, pp 3, 6.  
JPRS 46278

Play by Bamako Youth Explores Nation's Problems, 5 pp.  
FRENCH, np, L'Essor Hebdomadaire, 8 July 1968, p 6.  
JPRS 46392

Report on Priority of Cadre-Training, by Abdoulaye Baro, 5 pp.  
FRENCH, per, Europe France Outre-Mer, Apr-May 1968, pp 25-27.  
JPRS 46,320

**Africa**  
**Sociological (Contd)**

Marriage Customs, Laws in Africa Reviewed, by J. Delaire, 57 pp.  
FRENCH, per, enent, Vol 78, no 720, Apr-June 1968, pp 147-193.  
JPRS 46392

Activities of Foreigners in Nouakchott Reported, by M. Y. B., 7 pp.  
FRENCH, np, Le Peuple, 13 Jun 1968, p 3.  
JPRS 46357

President Explains Social Welfare Policy, by El hadj Ahmadou Ahidjo, 11 pp.  
FRENCH, np, La Presse du Cameroun, 13 Aug 1968, p 4.  
JPRS 46392

History of Municipality in Mali Reviewed, by Kamara Alamako, 5 pp.  
FRENCH, per, Revue Juridique et Politique, Apr-Jun 1968, pp 391-396.  
JPRS 46357

Development of Commune Organization Discussed, by Mohamed El Bechir Hal, 9 pp.  
FRENCH, per, Revue Juridique et Politique, Apr-June 1968, pp 407-414.  
JPRS 46392

Cities, Communes Organizational Reform Discussed, by Felix Vundowe, 6 pp.  
FRENCH, per, Revue Juridique et Politique, Apr-June 1968, pp 425-430.  
JPRS 46392

Role of Commune as Factor in Development Studied, by Michel Alliot, 9 pp.  
FRENCH, per, Revue Juridique et Politique, Apr-Jun 1968, pp 537-544.  
JPRS 46357

The Batwa People of Rwanda and Burundi, by Father Antonio de Carolis, 6 pp.  
ITALIAN, per, Nigrizia, May 1968, pp 4-7.  
JPRS 45720

**MIDDLE EAST**

**Economic**

Development of Petroleum Industry Reviewed, 16 pp.  
FRENCH, per, Le Commerce du Levant, Beirut, July 1968, pp 35-39.  
JPRS 46432

Cotton, Import-Export, Oil Transit Figures Given, 5 pp.  
FRENCH, per, Le Commerce du Levant, Beirut, July 1968, pp 76-77.  
JPRS 46432

Resources of Lebanese Banks Have Increased, 5 pp.  
FRENCH, np, L'Orient, 1 Aug 1968, p 10.  
JPRS 46360

Industrial Cargoes Seen Future of Lebanese Shipping, 10 pp.  
FRENCH, np, L'Orient, Beirut, 14 August 1968, pp 1, 14.  
JPRS 46441

**Political**

Police Transfers and Appointments Effected, 8 pp.  
ARABIC, np, Al-Jumhuriyyah, Cairo, 31 July 1968, p 5.  
JPRS 46432

RAFA Journalist Gives Views on Czech Situation, by Hatan Yanai, 7 pp.  
HEBREW, np, Bamahaneh, 23 July 1968, pp 8-9.  
JPRS 46301

Israel Sees Occupied Land Source of Hope, by Shlomo Gazit, 10 pp.  
HEBREW, np, Bamahaneh, Tel Aviv, 20 August 1968, pp 4-5, 26.  
JPRS 46441

Middle East  
Political (Contd)

Moshe Sneh Speaks on Middle East Crisis, by  
Moshe Sneh, 14 pp.  
HEBREW, np, Kol Ha'am, 5 Jul 1968, pp 2, 5.  
JPRS 46,360

Differences Between Rakah, Maki  
Described, by Uzi Burstein, 8 pp.  
HEBREW, np, Zo Haderekh, Tel Aviv,  
24 July 1968, p 5, and 31 July 1968,  
p 4.  
JPRS 46432

Letters Exchanged Between Hungarian,  
Israeli CP, 10 pp.  
YIDDISH, np, Frei Yisroel, Tel Aviv,  
25 July 1968, pp 2, 3 and 1 August 1968,  
pp 2, 3.  
JPRS 46432

Military

War Ministry Issues Decree on Draft Exemptions,  
6 pp.  
ARABIC, np, Al-Waqa'i' al-Misriyyah, 2 Jul 1968,  
pp 2-4.  
JPRS 46,360

Interview With Airborn Commander Col  
Rafael Eytan, by Benjamin Landau, 5 pp.  
HEBREW, np, Bamahaneh, Tel Aviv,  
6 August 1968, pp 6, 7.  
JPRS 46441

Armed Forces Exhibit Opens in Tel Aviv,  
by Yoav Tokar, 7 pp.  
HEBREW, np, Bamahaneh, Tel Aviv,  
6 August 1968, pp 24-27.  
JPRS 46441

Middle East  
Sociological

Land Reclamation in the United Arab Republic,  
6 pp.  
ARABIC, np, Al-Ahram (Supplement), 10 July 1968,  
pp 1, 4.  
JPRS 46301

Two Hundred New Villages Constructed, 6 pp.  
ARABIC, np, al-Ahram (Supplement), 10 July 1968,  
p 4.  
JPRS 46301

Amendment of the National Security Tax, 5 pp.  
ARABIC, np, al-Ahram, 30 July 1968, p 4.  
JPRS 46301

Changes Made in University Entrance Examinations,  
5 pp.  
GREEK, np, Elevtheros kosmos, 1 June 1968, pp 1, 9.  
JPRS 46301

Letters Support Greater Land of  
Israel Movement, 5 pp.  
HEBREW, np, Zot Haaretz, Tel Aviv,  
2 August 1968, p 6.  
JPRS 46441

Health Corps Members Help Rural Villagers,  
by Mehdi Faqihi, 8 pp.  
PERSIAN, np, Khandaniha, 6 Apr 1968, p 21.  
JPRS 46,360

Life in the Village of Ali'abad Reviewed,  
8 pp.  
PERSIAN, np, Khandaniha, 9 Apr 1968.  
JPRS 46,360

Biographic

Biographic Information, 6 pp.  
PERSIAN, np, Various Newspapers, 1968.  
JPRS 46201

FAR EAST

Economic

Cement Industry in Communist China Described, by Lu Yun, 9 pp.  
CHINESE, per, Fei-ch'ing Yen-chiu, Vol 2, No 6, 30 June 1968, pp 87-90.  
JPRS 46277

Hydraulic Resources in Vietnam, by Nguyen-Khac Nham, 9 pp.  
FRENCH, rpt, Document de la Conference des Nations Unies Sur L'Application de la Science Et De La Technique Dan L'Interest Des Regions Peu Developpees, 1962.  
AIS

In North Korea, by Sakurai Hiroshi.  
JAPANESE, per, Azai Keizai, Vol 11, Nov 1964, pp 51-59.  
ACSI J-5301  
ID 2204016268

South and North Korean Economy Under Stresses, by Miyashita Masahiro.  
JAPANESE, per, Ekonomsuto, 13 Feb 1968, pp 38-41.  
ACST J-5288  
ID 2204017168

Newly-Independent Countries Need Strong Economies, by Kim Ung, 13 pp.  
KOREAN, per, Kulloja, 30 May 1968, pp 58-64.  
JPRS 46079

Let Us Surge Upward in Socialist Construction, 16 pp.  
KOREAN, per, Kulloja, 30 May 1968, pp 2-9.  
JPRS 46079

More Reform is Needed in the Livestock Industry, by Chang Kuk-ch'an, 11 pp.  
KOREAN, per, Kulloja, No 6, June 1968, pp 39-44.  
JPRS 46377

Coal Industry of Today Contrasted With Yesterday, by Kim Tong-su, 5 pp.  
KOREAN, np, Minju Choson, Pyongyang, 4 July 1968, p 2.  
JPRS 46507

Far East  
Economic (Contd)

Development of Mining Industry Reviewed, by Cho On-hwan, 7 pp.  
KOREAN, np, Minju Choson, Pyongyang, 4 July 1968, p 2.  
JPRS 46507

Mass Movement For Scrap Iron Collection, by Kim Yon-tok, 5 pp.  
KOREAN, np, Nodong Chongnyon, Pyongyang, 5 July 1968, p 2.  
JPRS 46507

Development of Chemical Industry Urged, 6 pp.  
KOREAN, np, Nodong Sinmun, Pyongyang, 9 July 1968, p 2.  
JPRS 46507

Agricultural Cooperative Members Receive Pensions, by O. Amarhuu, 5 pp.  
MONGOLIAN, per, Ardyn Tor, No 1, 1968, pp 7-10.  
JPRS 46045

1968 State Plan, Results of 1966 Budget Discussed, by D. Sodnom, 16 pp.  
MONGOLIAN, np, Unen, 22 Jun 1968, p 3.  
JPRS 46,249

1968 Plan for Development of Economy, Culture, Budget, by O. Tsend, 7 pp.  
MONGOLIAN, np, Unen, 23 June 1968, p 2.  
JPRS 46,249

Fulfillment of First Half of 1968 Plan Reported, 7 pp.  
MONGOLIAN, np, Unen, 28 Jul 1968, p 1.  
JPRS 46,249

Role of Technical Training Schools Expanded, by G. Damdindorj, 7 pp.  
MONGOLIAN, per, Surgen Humuujuulegch, No 2, 1967, pp 69-72.  
JPRS 45836

Local Industrial Development Problems Reviewed, by Ngo Thuc, 12 pp.  
VIETNAMESE, per, Hoc Tap, No 7, July 1968, pp 53-60.  
JPRS 46516



Far East  
Economic (Contd)

Nam Ha Trade Unions Aid Goods Distribution Task,  
by Xuan Lai, 6 pp.  
VIETNAMESE, np, Lao-dong, 8 May 1968, p 3.  
JPRS 46077

Coordination of Two Basic Economies Urged, 6 pp.  
VIETNAMESE, np, Nhan-dan, 16 Jul 1968, pp 1-2.  
JPRS 46,280

Past Triumphs Bolster State Plan for  
1968, by Nguyen Van Dao, 9 pp.  
VIETNAMESE, per, Thoi-su Pho-thong,  
January 1968, pp 16-24.  
JPRS 45,954

Political

Study of May 1966 Chinese Circular Recommended,  
7 pp.  
DANISH, per, Kommunistisk Orientering, No 11,  
22 May 1968, pp 1-3.  
JPRS 45838

Cambodian Police Deport Vietnamese,  
Chinese, 5 pp.  
FRENCH, per, Jornal Officiel du  
Cambodge, Phnom Penh, 3 April 1968,  
p 1, 376-1, 378.  
JPRS 46585

North Korean Political and Economic Conditions.  
JAPANESE, per, Chosa Geppo, Jul 1965, pp 11-27.  
ACSI J-5284  
ID 2204016768

Korea's North-South Unification Issue.  
JAPANESE, per, Chosa Geppo, No 115, Jul 1965,  
pp 28-41.  
ACSI J-5285  
ID 2204016868

Reflections and Prospect on the Internal and  
External Situations.  
JAPANESE, per, Koan Chosacho, Kaigai Josei  
Mo Kaiko To Tenbu, Jan 1967, pp 72-95.  
ACSI J-5304  
ID 2204016968

Far East  
Political (Contd)

Genesis of North Korea's Independent Foreign  
Policy Line, by Choga Kazuya.  
JAPANESE, bk, Kokusai Mondai, pp 48-53.  
ACSI J-5286  
ID 2204016968

Relations Between North Korea, The Soviet  
Union and China.  
JAPANESE, per, Shoten No., No 165, Jun 1966,  
pp 4-10.  
ACSI J-5287  
ID 2204017068

Translations on North Korea, 117 pp.  
KOREAN, per, Kulloja, No 4, 1968, pp 2-12,  
13-20, 21-28, 29-35, 36-46, 47-53, 54-59,  
60-64.  
JPRS 45872

Selected Works of Kim Il-Song Published, 38 pp.  
KOREAN, per, Kulloja, 30 May 1968, pp 10-30.  
JPRS 46079

Anti-Japanese National United Front Described,  
14 pp.  
KOREAN, per, Kulloja, 30 May 1968, pp 31-37.  
JPRS 46079

Master True Meaning of 'Education is Revolution',  
by Yi Chang-su, 11 pp.  
KOREAN, per, Kulloja, 30 May 1968, pp 38-43.  
JPRS 46079

Merits of Sub-Team Control System Discussed, by  
Chon Ch'u-ho, 14 pp.  
KOREAN, per, Kulloja, 30 May 1968, pp 44-50.  
JPRS 46079

Policy for South Korean Revolution Proposed, by  
Paek Hui-man, 14 pp.  
KOREAN, per, Kulloja, 30 May 1968, pp 51-57.  
JPRS 46079

Viability of Self-Identity, 20 pp.  
KOREAN, per, Kulloja, No 6, June 1968, pp 2-11.  
JPRS 46377

Revolutionary Pride under Kim Il-song's  
Leadership, 11 pp.  
KOREAN, per, Kulloja, No 6, June 1968, pp  
12-17.  
JPRS 46377

Far East  
Political (Contd)

Socialist Patriotism Traditions, 11 pp.  
KOREAN, per, Kulloja, No 6, June 1968, pp  
18-23.  
JPRS 46377

The Party Spirit, the Working Class Spirit,  
and the Popular Spirit, by Kim Ch'ang-hyong,  
14 pp.  
KOREAN, per, Kulloja, No 6, June 1968, pp 24-30.  
JPRS 46377

The Flying Horse Work Team Movement Still  
Needed, by Chon Ch'ang-yol, 17 pp.  
KOREAN, per, Kulloja, No 6, June 1968, pp  
31-38.  
JPRS 46377

Imperialism Is a Castle in the Air, by  
Ko Hun-il, 12 pp.  
KOREAN, per, Kulloja, No 6, 30 June 1968,  
pp 52-58.  
JPRS 46377

The Irreconcilable Enemy, American Imperialism,  
by Chon Ki-hong, 10 pp.  
KOREAN, per, Kulloja, No 6, 30 June 1968,  
pp 59-64.  
JPRS 46377

Let Us Arm Ourselves With the Party's  
Revolutionary Traditions, 13 pp.  
KOREAN, per, Kulloja, P'yongyang,  
30 July 1968, pp 2-8.  
JPRS 46571

Further Unity of the Toilers Is Urged,  
12 pp.  
KOREAN, per, Kulloja, P'yongyang,  
30 July 1968, pp 9-14.  
JPRS 46571

Criticism and Self-Criticism in the  
Anti-Japanese Guerrilla Force, 18 pp.  
KOREAN, per, Kulloja, P'yongyang,  
30 July 1968, pp 15-24.  
JPRS 46571

Far East  
Political (Contd)

Justification of Our Party's Military  
Policy, 18 pp.  
KOREAN, per, Kulloja, P'yongyang,  
30 July 1968, pp 25-33.  
JPRS 46571

Revolutionary Upsurge and the Party  
Committee, by Kim Hak-son, 14 pp.  
KOREAN, per, Kulloja, P'yongyang,  
30 July 1968, pp 34-40.  
JPRS 46571

Justification of Our Party Policy For  
Uniformity and Specification in  
Planning, 20 pp.  
KOREAN, per, Kulloja, P'yongyang,  
30 July 1968, pp 41-50.  
JPRS 46571

Concept of Self-Identity and Our  
Scientific and Technological Develop-  
ment, by O Tong-uk, 13 pp.  
KOREAN, per, Kulloja, P'yongyang,  
30 July 1968, pp 51-57.  
JPRS 46571

Formation and Role of the World  
Socialist Market, by Kye Ung-t'ae,  
13 pp.  
KOREAN, per, Kulloja, P'yongyang,  
30 July 1968, pp 58-64.  
JPRS 46571

Work for Great Task of Country's Unification,  
10 pp.  
KOREAN, np, Nodong Ch'ongnyon, 14 Mar 1968,  
p 2.  
JPRS 45707

Methods of Revolutionizing Youth  
Described, 11 pp.  
KOREAN, np, Nodong Chongnyon,  
Pyongyang, 4 July 1968, p 1.  
JPRS 46507

Far East  
Political (Contd)

Choson Inmingun Observes 20th Anniversary, by Chu Chong-hui, 6 pp.  
KOREAN, np, Nodong Chongnyon,  
Pyongyang, 10 July 1968, p 3.  
JPRS 46507

Importance of Premier's Talk to Youth Stressed, 11 pp.  
KOREAN, np, Nodong Chongnyon,  
Pyongyang, 11 July 1968, pp 2-3.  
JPRS 46507

Consolidation of Revolutionary Base Urged, 15 pp.  
KOREAN, np, Nodong Chongnyon, Pyongyang,  
14 July 1968, pp 2-3.  
JPRS 46507

Foreign Personalities in Mongolia, 7 pp.  
MONGOLIAN, per, Various Sources.  
JPRS 45836

Activities of Choybalsan Assembly Reviewed,  
5 pp.  
MONGOLIAN, per, Ardyn Tor, No 2, 1968, pp 31-33.  
JPRS 46,350

Work, Future Tasks of Irrigation Workers Outlined, by Ts. Denterel, 11 pp.  
MONGOLIAN, np, Dzaluuchaudyn Uzun, 19 Jan 1967,  
p 3.  
JPRS 46,350

Dandinjab Addresses Young Transport Workers,  
by L. Dandinjab, 15 pp.  
MONGOLIAN, np, Dzaluuchaudyn Uzun, 9 Jan 1968,  
pp 2, 3.  
JPRS 46,350

Digersuren Addresses Young Transport Workers,  
by Ts. Digersuren, 7 pp.  
MONGOLIAN, np, Dzaluuchaudyn Uzun, 12 Jun 1968,  
p 2.  
JPRS 46,350

Tsedenbal Addresses Fourth Plenum of MPRP CC,  
by Yu. Tsedenbal, 7 pp.  
MONGOLIAN, np, Sotsialist Hodoo A. Ahuy,  
11 Apr 1968, p 2.  
JPRS 46,350

Far East  
Political (Contd)

Alliance of Peaceful, Democratic Forces Formed, by Huynh Van Tieng,  
6 pp.  
VIETNAMESE, np, Cuu Quoc, Hanoi,  
14 July 1968, pp 3, 10.  
JPRS 46538

All Areas Urged to Train Well, Contribute to War,  
by S. H. D., 9 pp.  
VIETNAMESE, np, Doc Lap, 23 Mar 1968, 23 May 1968.  
JPRS 46022

Delegates to Hanoi Party Congress Interviewed, 6 pp.  
VIETNAMESE, np, Hanoi Moi, Hanoi,  
16 April 1968, p 3.  
JPRS 46590

Le Nam Thang Reports the Situation in Hanoi, 9 pp.  
VIETNAMESE, np, Hanoi Moi, 24 Apr 1968, p2.  
JPRS 46041

Support Expressed for President Ho's Appeal,  
5 pp.  
VIETNAMESE, per, Hoc Tap, No 7, July 1968,  
pp 5-11.  
JPRS 46516

Party Leadership over Finance, Commerce, Pricing Strengthened, 8 pp.  
VIETNAMESE, per, Hoc Tap, No 7, July 1968,  
pp 12-15.  
JPRS 46516

Defeat the U.S. Invader's War of Destruction,  
by Van Tien Dung, 15 pp.  
VIETNAMESE, per, Hoc Tap, No 7, July 1968,  
pp 19-31.  
JPRS 46516

Increase Training, Development of Women Cadre,  
by Vu Trong Kien, 12 pp.  
VIETNAMESE, per, Hoc Tap, No 7, July 1968,  
pp 32-39.  
JPRS 46516

Far East  
Political (Contd)

Socialism Has Brought Great Progress to Poland,  
by Luong Phu, 5 pp.  
VIETNAMESE, per, Hoc Tap, No 7, July 1968, pp  
70-73.  
JPRS 46516

Paris Conference Exposes Americans as Aggressors,  
by Luu Quy Ky, 12 pp.  
VIETNAMESE, per, Hoc Tap, No 7, July 1968,  
pp 74-81.  
JPRS 46516

Theory, Needs of Communist Education Discussed,  
by The Ha, 8 pp.  
VIETNAMESE, np, Ngnoi Giao Vien Nhan Dan, 25 Apr  
1968, pp 2, 3, 6, 7.  
JPRS 46041

City Compatriots Stage Uprising in the South,  
by Hy Hung, 5 pp.  
VIETNAMESE, np, Nhan Dan, 24 May 1968, p 3.  
JPRS 45846

General Offensive, Uprisings Reviewed, by  
Tran Kien, 6 pp.  
VIETNAMESE, np, Nhan Dan, 24 June 1968, p 3.  
JPRS 46077

Dai Tu District Improves Party Cell Life, 6 pp.  
VIETNAMESE, np, Nhan Dan, 26 June 1968, p 2.  
JPRS 46077

Nguyen Chi Thanh Reviews Problem of Individualism,  
by Nguyen Chi Thanh, 18 pp.  
VIETNAMESE, np, Nhan Dan, 4 July 1968, pp 2, 3.  
JPRS 46190

June War Crimes of Americans Recounted, 5 pp.  
VIETNAMESE, np, Nhan-dan, 8 Jul 1968, p 4.  
JPRS 46,252

Liberation News Agency Reports June Victories,  
6 pp.  
VIETNAMESE, np, Nhan-dan, 9 Jul 1968, p 3.  
JPRS 46,280

Khe Sanh Evacuation is Military, Political  
Defeat, 5 pp.  
VIETNAMESE, np, Nhan-dan, 13 Jul 1968, pp 1, 4.  
JPRS 46,252

Far East  
Political (Contd)

Hanoi Seethes with Political Campaign, by  
Nguyen Ba Doan, 6 pp.  
VIETNAMESE, np, Nhan-dan, 29 July 1968, p 2.  
JPRS 46405

Doctor Spock Valiantly Unmasks U. S. Aggression,  
by Dieu Binh, 10 pp.  
VIETNAMESE, np, Nhan Dan, 2, 3 Aug 1968, p 3.  
JPRS 46386

Develop Offensive Spirit Movement, by  
Viet-Tien, 8 pp.  
VIETNAMESE, per, Quan-doi Nhan-dan, 29 Apr  
1968, pp 2,3,4.  
JPRS 45717

Anniversary of Birth of Karl Marx Celebrated,  
7 pp.  
VIETNAMESE, np, Quan Doi Nhan Dan, 5 May 1968,  
p 1.  
JPRS 45846

Our New Forward Step Means New Weakening of  
Enemy, by Chien Thang, 8 pp.  
VIETNAMESE, np, Quan Doi Nhan Dan, 13 May  
1968, pp 1 & 4.  
JPRS 45846

Victories of Vietnam Will Be Recorded  
in History, 6 pp.  
VIETNAMESE, np, Quan Doi Nhan Dan,  
Hanoi, 28 June 1968, p 1.  
JPRS 46538

Story of Victory of Khe Sanh Recounted,  
by Van Uyen, Phuong Hong, 8 pp.  
VIETNAMESE, np, Quan-doi Nhan-dan,  
Hanoi, 29, 30 June 1968.  
JPRS 46538

American Stubbornness Revealed at  
Paris Talks, by Thanh Tin, 5 pp.  
VIETNAMESE, np, Quan-doi Nhan-dan,  
Hanoi, 15 July 1968, p 4.  
JPRS 46498

Far East  
Political (Contd)

Evidence of U.S. Designs on Vietnam Presented, by Trinh Sat, 7 pp.  
VIETNAMESE, np, Quan-doi Nhan-dan, Hanoi, 20, 21 July 1968, pp 2, 3.  
JPRS 46498

Korean-Vietnamese Solidarity Reaffirmed, by Odeuan, 5 pp.  
VIETNAMESE, np, Quan-doi Nhan-dan, Hanoi, 27 July 1968, p 4.  
JPRS 46436

Historical Context of Vietnam War Analyzed, by Hong Son, 17 pp.  
VIETNAMESE, per, Tuyen Huan, Hanoi, No 8, August 1968, pp 12-22.  
JPRS 46594

Township Outlines Four-Point Ideological Program, by Bac Ha, 13 pp.  
VIETNAMESE, per, Tuyen Huan, Hanoi No 8, August 1968, pp 42-47.  
JPRS 46594

Military

Some Types of Atomic Powered Rockets, by Shu Ch'i.  
CHINESE, per, Hang K'ung Chih Shih, No 3, 1960, pp 17-18.  
\*FTD-HT-23-838-68C

Chinese Communists Mobilizing in Yunnan and Kwangsi, no author  
CHINESE, np, Hsin Shen Pao, No 8134, 12 Mar 1968, p 1.  
\*FTD-HT-23-845-68C

Model Z28-1 Vibration Pickup, no author,  
CHINESE, np, Jen Min Jih Pao, No 7167, 1968, p 6.  
\*FTD-HT-23-847-68C

Ethnography of the Military Territories.  
FRENCH, bk, Ethnographie des Territoires Militaires, 1904, pp 71-72, 157, 165-242.  
\*ACSI J-5497  
ID 2204017468

Far East  
Military (Contd)

Kupriyanov Writes About Captured American Pilot, by Ivan Kupriyanov, 5 pp.  
MONGOLIAN, bk, Utga Dzohiol Urlag, Ulan Bator, 9 August 1968, pp 3, 4.  
JPRS 46436

American Withdrawal from Khe Sanh Analyzed, 6 pp.  
VIETNAMESE, per, Hoc Tap, No 7, July 1968, pp 40-44.  
JPRS 46516

Program Outlined for Militia, Self-Defense Forces, by Tran Loc, 13 pp.  
VIETNAMESE, per, Hoc Tap, No 7, July 1968, pp 45-52.  
JPRS 46516

Policy Toward Heroes, Emulation Fighters Implemented, by Nguyen Van Tao, 5 pp.  
VIETNAMESE, per, Nhan Dan, 28 Apr 1968, p 2.  
JPRS 45717

Victories During May Offensive Recounted, 13 pp.  
VIETNAMESE, np, Nhan-dan, 20 May 1968, p 2.  
JPRS 46,358

Liberation Army Fights Enemy in Central Trong Bo, 5 pp.  
VIETNAMESE, np, Nhan Dan, 2 June 1968, p 3.  
JPRS 46041

United States, SVN Forces are on the Defensive, 5 pp.  
VIETNAMESE, np, Nhan-dan, 12 June 1968, pp 1, 2.  
JPRS 46078

SVN Cities Become Raging Battlefields, by Giang Nam, 7 pp.  
VIETNAMESE, np, Nhan-dan, 12 June 1968, p 3.  
JPRS 46078

American 'War Crimes' in Panhandle Denounced, 5 pp.  
VIETNAMESE, np, Nhan-dan, 12 June 1968, p 3.  
JPRS 46078

Far East  
Military (Contd)

Americans Must Accept Collapse of Puppet Army,  
by Ha Dang, 7 pp.  
VIETNAMESE, np, Nhan-dan, 18 June 1968, p 3.  
JPRS 46199

U.S. Khe Sanh Strategy Proves Ineffectual,  
by Anh Hong, 11 pp.  
VIETNAMESE, np, Nhan-dan, 16, 17 Jul 1968,  
p 3.  
JPRS 46,358

Humiliated U. S. Marines Withdraw from Khe  
Sanh, by Anh Hong, 5 pp.  
VIETNAMESE, np, Nhan-dan, 17 Jul 1968, p 3.  
JPRS 46,358

Care for Wounded Soldiers and Their  
Families, by Ung Van Khiem, 7 pp.  
VIETNAMESE, np, Nhan-dan, Hanoi,  
28 July 1968, p 3.  
JPRS 46436

Protect Health of Troops during Summer,  
by Vu Van Can, 5 pp.  
VIETNAMESE, np, Quan Doi Nhan Dan, 17 Apr  
1968, p 2.  
JPRS 45946

Accomplishments of Rear Services Branch  
Praised, 5 pp.  
VIETNAMESE, np, Quan Doi Nhan Dan, 9 May  
1968, p 1.  
JPRS 45846

Methods of Ideological Work Adopted by Armed  
Forces, 16 pp.  
VIETNAMESE, np, Quan Doi Nhan Dan, 8, 9 & 11  
May 1968, p 3.  
JPRS 45846

Military Region 3 Finds, Trains Cadres, by  
Nguyen Quyet, 10 pp.  
VIETNAMESE, np, Quan Doi Nhan Dan, 22, 23 May  
1968, p 3.  
JPRS 45846

Far East  
Military (Contd)

Efforts of Military Region Four Are  
Successful, by Le Quang Hoa, 11 pp.  
VIETNAMESE, np, Quan Doi Nhan Dan,  
Hanoi, 30 June 1968, p 3.  
JPRS 46538

Policies for Wounded Soldiers,  
Dependents Listed, 5 pp.  
VIETNAMESE, np, Quan Doi Nhan Dan,  
Hanoi, 25 July 1968, p 3.  
JPRS 46436

North Vietnam Stresses Training of  
Cadres, by To Huu, 18 pp.  
VIETNAMESE, per, Tin-thuc Hoat-dong  
Khoa-hoc, January 1968, pp 1-12.  
JPRS 45,954

Campaign Set to Raise Confidence in  
War Line, 13 pp.  
VIETNAMESE, per, Tuyen Huan, Hanoi  
No 8, August 1968, pp 4-11.  
JPRS 46594

First Six Months of General Offensive  
Analyzed, by Ha Van, 14 pp.  
VIETNAMESE, per, Tuyen Huan, Hanoi,  
No 8, August 1968, pp 28-34.  
JPRS 46594

Sociological

Demographic Notes on a White Mao Canton of  
Thailand, by Guy Morechand.  
FRENCH, per, Bulletin de la Societe des Etudes  
Indochinoises, Vol 27, No 3, 1952, pp 355-361.  
\*ACSI J-5497  
ID 2204017468

Swiss Student Comments on Cultural Revolution,  
by J. F. Milleter, Ruth Padrum, 16 pp.  
FRENCH, per, Croissance de Jeunes Nations, July-  
Aug 1968, pp 19-26.  
JPRS 46277

Far East  
Sociological (Contd)

"Languages" in French Colonial Empire:  
"Indochina", by Henri Maspero.  
FRENCH, bk, Un Empire Colonial Français  
L'Indochine, Vol 1, 1929, pp 63-80.  
\*ACSI J-5497  
ID 2204017468

White Thais and Black Thais (Part 1), by  
Henri Roux.  
FRENCH, per, Extreme-Asie, No 90, 1934,  
pp 943-956.  
\*ACSI J-5497  
ID 2204017468

White Thais and Black Thais (Part 2), by  
Henri Roux.  
FRENCH, per, Extreme-Asie, No 91, 1934,  
pp 996-1006.  
\*ACSI J-5497  
ID 2204017468

White Thais and Black Thais (Part 3), by  
Henri Roux.  
FRENCH, per, Extreme-Asie, No 92, 1935,  
pp 1041-1049.  
\*ACSI J-5497  
ID 2204017468

The Three Great Races of Yun-nan Province,  
by Hsu Itang.  
FRENCH, bk, Les Trois Grandes Races de la  
Province du Yun-nan, 1932, 180 pp.  
\*ACSI J-5497  
ID 2204017468

Improvement of Educational System Discussed,  
by D. Gombosuren, 9 pp.  
MONGOLIAN, per, Surzan Humunjuulegch, No 3,  
1967, pp 9-18.  
JPRS 45836

Foreign Personalities in Mongolia, 5 pp.  
MONGOLIAN, per, Ulan Bator, Mar-Jun 1968.  
JPRS 46,282

Township Discusses Success in Education Work,  
by Nguyen Phuc Viet, 13 pp.  
VIETNAMESE, per, Hoc Tap, No 7, July 1968,  
pp 61-69.  
JPRS 46516

Far East  
Sociological (Contd)

Saigon Literature, Art is Decadent, Unpersuasive,  
by Boi Lan, 12 pp.  
VIETNAMESE, per, Hoc Tap, No 7, July 1968,  
pp 82-89.  
JPRS 46516

Factory Canteen Keeps Workers Happier, Healthier,  
by Bui Thi Lien, 5 pp.  
VIETNAMESE, np, Lao Dong, 15 May 1968, p 3.  
JPRS 46041

Tay-Thai Ethnic Groups in Vietnam Described, by  
Dang Nghiem Van, 24 pp.  
VIETNAMESE, per, Nghien Cuu Lich Su, No 3, Mar  
1968, pp 24-36.  
JPRS 46386

'Shopping Centers' Organized for Hanoi Workers,  
by Tran Nguyen, 5 pp.  
VIETNAMESE, np, Nhan-dan, 12 June 1968, p 2.  
JPRS 46078

Biographic

Biographic Information on Mongolian Personalities,  
10 pp.  
MONGOLIAN, per, Ulan Bator, Mar-Jun 1968.  
JPRS 46,282

Life Story of Nguyen Thi Dinh Published, by  
Phan Nhan, 10 pp.  
VIETNAMESE, np, Tap Chi Van Hoc, Apr 1968,  
pp 5-14.  
JPRS 46,300

Biographical Sketch of Karl Marx  
Published, 7 pp.  
VIETNAMESE, per, Tuyen Huan, May 1968,  
pp 4-7  
JPRS 45,941

## LATIN AMERICA

### Economic

New Pasta Factory in Cuba Means Better Nutrition,  
by Alberto Pozo, 8 pp.  
SPANISH, np, Bohemia, 2 Aug 1968, pp 24-29.  
JPRS 46373

Finance Minister Interviewed on Reform, 12 pp.  
SPANISH, np, Caracas, 28 June-11 July 1968, pp  
12, 12a, 12b, 12c.  
JPRS 46188

Socio-Economic Survey of Santa Fe's  
Forest Zone, 53 pp.  
SPANISH, per, Cristianismo y  
Revolucion, Buenos Aires, July 1968,  
pp 3-13.  
JPRS 46443

Five-Year Sugar Industry Plan Discussed, 5 pp.  
SPANISH, np, Juventud Rebelde, 17 Jun 1968, p 6.  
JPRS 46,285

Bank Board Member Defends Anti-Devaluation  
Stand, by Julio Herrera Vargas, 7 pp.  
SPANISH, np, Marcha, Montevideo, 15 Aug 1968,  
pp 8, 18.  
JPRS 46522

Sugar Industry Plans to Meet Labor Shortage,  
by Jorge Fernandez, 7 pp.  
SPANISH, per, Verde Olivo, 21 July 1968, pp 20-23.  
JPRS 46373

### Political

Book Talks of Guevara, Latin American Revolution,  
by Jean Larteguy, 15 pp.  
GERMAN, per, Der Spiegel, 29 Jul 1968, pp 54-55;  
57-60; 62-65.  
JPRS 46,285

French Journalist Interviewed Che Guevara, by  
Jean Marcilly, 5 pp.  
GERMAN, per, Der Spiegel, 29 Jul 1968, pp 62-63.  
JPRS 46,285

## Latin America Political (Contd)

South American Leftist Author Views  
Che Guevara, by Tristan Marof, 5 pp.  
GERMAN, np, Die Zeit, Hamburg,  
23 August 1968, pp 5-6.  
JPRS 46539

Ideology of Ernesto Che Guevara  
Explored, by Peter Schenkel, 23 pp.  
GERMAN, per, Vierteljahresberichte,  
Bad Godesberg, June 1968, pp 137-153.  
JPRS 46539

Brazilian CPs Analyze Split, Side  
With Mao, 7 pp.  
PORTUGUESE, np, Jornal do Brasil,  
Rio de Janeiro, 25 August 1968, p 19.  
JPRS 46539

Brazilian Communists Continue Division,  
7 pp.  
PORTUGUESE, np, Jornal do Brasil,  
Rio de Janeiro, 1 September 1968, p 35.  
JPRS 46539

Bolivian Communists Promise to Oust Dictatorship,  
12 pp.  
SPANISH, 23 June 1968, pp 1-17.  
JPRS 46340

Women Who Fought in Escambray Recall Experiences,  
by Javier Rodriguez, 14 pp.  
SPANISH, np, Bohemia, 9 Aug 1968, pp 12-16.  
JPRS 46373

Plutocracy Faces the ICAP, by Mario Herrera  
Gray, 5 pp.  
SPANISH, np, El Comercio, 12 May 1968, pp 8-9.  
JPRS 45719

Bolivia's Third Highest Official Flees to Chile,  
by Herman Millas, 6 pp.  
SPANISH, per, Excelsior, 24-30 July 1968, pp 9-11.  
JPRS 46340

Communist Party Leader Discusses  
Che Guevara, by Mario Monje, 18 pp.  
SPANISH, np, Expresso, Lima,  
20 July 1968, pp 16-17, 22 July 1968,  
pp 16-17.  
JPRS 46443



Latin America  
Political (Contd)

Manifiesto of Mexican Communist Party  
Given, 5 pp.  
SPANISH, np, Excelsior, Mexico City,  
4 August 1968, p 8.  
JPRS 46443

Arguedas, CIA and 'Che' Guevara's  
Diary, 6 pp.  
SPANISH, np, Gente, Lima, 28 August  
1968, pp 27, 28, 29, 30, 31, 34.  
JPRS 46539

Personal History of Revolutionary Hero Given,  
by Pedro Abreu, 5 pp.  
SPANISH, np, Granma, 8 July 1968, p 4.  
JPRS 46373

Preparations in Santa Clara for 26 July Event,  
by Isidro Cineda, 5 pp.  
SPANISH, np, Granma, 23 July 1968, p 3.  
JPRS 46373

Achievements and Problems in Oriente Discussed,  
by Guillermo Garcia, 7 pp.  
SPANISH, np, Granma, 24 July 1968, p 4.  
JPRS 46362

Isle of Pines Progressing on Road to  
Communism, by Margarita Torres,  
Mary Cruz, 7 pp.  
SPANISH, np, Granma, Havana, 12 August  
1968, p 1, 5, 13 August 1968, p 4,  
14 August 1968, p 5.  
JPRS 46443

Tupamaros Liberation Movement Conducts Struggle,  
5 pp.  
SPANISH, np, Granma, Havana, 19 Aug 1968, p 7.  
JPRS 46522

Peruvian Communist Official Talks about  
Elections, by Jorge del Prado, 5 pp.  
SPANISH, np, La, May 1968, pp 6-7.  
JPRS 45719

Statements Made by BOCL Membership Drive Workers,  
5 pp.  
SPANISH, np, Libertad, 3 Aug 1968, p 6, 7.  
JPRS 46362

Latin America  
Political (Contd)

Biography Sheds New Light on Ernesto "Che"  
Guevara, by Ricardo Rojo, 14 pp.  
SPANISH, np, Marcha, 10 May 1968, pp 16-18.  
JPRS 45719

Prospects for a Coup in Argentina, by  
Carlos Maria Gutierrez, 6 pp.  
SPANISH, np, Marcha, 10 May 1968, pp 22-23.  
JPRS 45719

War Between Chile, Argentina is Possible, by  
Ted Cordova-Claure, 6 pp.  
SPANISH, np, Marcha, 2 Aug 1968, p 15.  
JPRS 46362

Velasco Wins Fifth Presidential Term in Ecuador,  
by Julio Castro, 5 pp.  
SPANISH, np, Marcha, 9 Aug 1968, p 19.  
JPRS 46340

Trend to Left Seen in New President's  
Views, 5 pp.  
SPANISH, np, Marcha, Montevideo,  
15 August 1968, p 15.  
JPRS 46539

Police Actions During University Raid Reported,  
by Daniel Waksmann Schinca, Jose Manuel Quijano,  
11 pp.  
SPANISH, np, Marcha, Montevideo, 15 Aug 1968,  
pp 24, 10, 18.  
JPRS 46522

Reflections on Ernesto Guevara's  
Diary Voiced, 13 pp.  
SPANISH, np, Mensaje, Chile, No 171,  
August 1968, pp 333-338.  
JPRS 46443

Soviet Ambassador Served USSR Well in Chile,  
8 pp.  
SPANISH, np, PEC, 8 Mar 1968.  
JPRS 46188

Historical Analysis of Chilean Communism,  
10 pp.  
SPANISH, np, PEC, 10 May 1968, pp 5-8.  
JPRS 45719

Latin America  
Political (Contd)

Preview of March Elections in Valparaiso, by  
Paul Dubois, 7 pp.  
SPANISH, np, PEC, 5 July 1968, p 10.  
JPRS 46188

Last Three Elections in Aconcagua  
Studied, by Paul Dubois, 6 pp.  
SPANISH, np, PEC, Santiago de Chile,  
26 July 1968, p 4.  
JPRS 46443

Youth Leader Looks at Revolution in  
Latin America, by Guillermo Atlas,  
6 pp.  
SPANISH, np, Plan, Santiago de Chile,  
31 July 1968, p 3.  
JPRS 46443

Leftist Liberation Front Issues Resolutions,  
5 pp.  
SPANISH, np, El Popular, 21 July 1968, p 12.  
JPRS 46373

Leftist Liberation Front Expands in Countryside,  
5 pp.  
SPANISH, np, El Popular, 23 July 1968, p 12.  
JPRS 46373

Communist Leader Urges End to Emergency Measures,  
by Rodney Arismendi, 6 pp.  
SPANISH, np, El Popular, Montevideo, 20 Aug 1968,  
pp 1, 5.  
JPRS 46522

Injustice Promotes Violence in  
Chihuahua, by Mario Menendez Rodriguez,  
12 pp.  
SPANISH, np, Por Que, Mexico City,  
28 August 1968, pp 16-22.  
JPRS 46539

Bolivian Interior Minister Discusses Che's Diary,  
by Antonio Arguedas, 15 pp.  
SPANISH, np, La Republica, 31 July 1968, p 7.  
JPRS 46362

Latin America  
Political (Contd)

Interview With Stokely Carmichael  
Reported, by Raul Castellano II,  
7 pp.  
SPANISH, np, Siempre, Mexico City,  
4 September 1968, pp 44-45.  
JPRS 46539

Causes of Voter Abstention Investigated, 8 pp.  
SPANISH, np, El Siglo, 16 May 1968, pp 1, 3.  
JPRS 45719

Interview with Chilean Communist Party Head,  
7 pp.  
SPANISH, np, El Siglo, 2 July 1968, p 12.  
JPRS 46188

Uribe Rueda Gives Views on Political Situation,  
by Elias Matus, 6 pp.  
SPANISH, np, El Siglo, 31 Jul 1968, p 7.  
JPRS 46,285

Legislator Describes Role of Conservatives,  
by Elias Matus, 9 pp.  
SPANISH, np, El Siglo, 6 Aug 1968, pp 9, 17.  
JPRS 46340

Liberals Seek Federal System, by Gabriel Gutierrez,  
6 pp.  
SPANISH, np, El Tiempo, 12 May 1968, pp 1, 27.  
JPRS 45719

Colombian President Urges Reform Passage,  
by Gabriel Ortiz, 5 pp.  
SPANISH, np, El Tiempo, 19 May 1968,  
pp 1, 25.  
JPRS 45719

Closer Colombian-Ecuadorian Relations Urged,  
6 pp.  
SPANISH, np, El Tiempo, 6 Aug 1968, pp 1, 28.  
JPRS 46340

Communist Leader Blames Guerrilla Defeat on Cuba,  
by Oscar Zamora M., 14 pp.  
SPANISH, np, Los Tiempos, 14 July 1968, pp 1, 6.  
JPRS 46362

Latin America  
Military

Chile's Military Speak Out, by Fernando  
Reyes Matta, 8 pp.  
SPANISH, np, Siete Dias, 10 May 1968,  
pp 16-18.  
JPRS 45719

Sociological

The Development of Psychology in Cuba Outlined,  
by Jose A. Bustamante, 10 pp.  
RUSSIAN, per, Voprosy Psikhologii, No 3, 1968,  
pp 156-160.  
JPRS 46188

New Rural Orientation Program Described, by  
Orlando Fundora, 7 pp.  
SPANISH, np, Granma, 8 July 1968, p 2.  
JPRS 46373

Population Growth Worries Alliance  
for Progress, by Jose Manuel Quijano,  
7 pp.  
SPANISH, np, Marcha, Montevideo,  
9 August 1968, pp 23-24 .  
JPRS 46539

University Admission Requirements  
Given, 14 pp.  
SPANISH, np, El Mundo, Havana,  
20 August 1968, p 5.  
JPRS 46443

Front Gives Views on Sociological Problems,  
9 pp.  
SPANISH, np, El Popular, 25 July 1968, p 7.  
JPRS 46373

Priests Ask for Changes, 5 pp.  
SPANISH, np, Los Tiempos, 9 May 1968, p 5.  
JPRS 45719

Cuba Enlists Aid of Population in Farm Work,  
by Raul Diaz Arguilles, 8 pp.  
SPANISH, per, Verde Olivo, 28 July 1968,  
pp 63-66.  
JPRS 46373

# SCIENTIFIC

## Aeronautics

Aviation Materials Study, by B. K. Vul'f.  
RUSSIAN, mono, Aviatsionnoye Materialovedeniye,  
3d Ed, 1967, Part 4, pp 210-233; Part 5, pp 241-  
301; Part 7, pp 381-385.  
\*FTD-HT-23-832-68C

Winter: Landing Under Conditions of  
Ice-Formation, by O. Trunov, 7 pp.  
RUSSIAN, bk, Aviatsiya i Priroda,  
pp 1-2.  
P100228368-V  
FTD-HT-23-643-67

The Hydrostatic Bearing as a Source of Vibrations,  
by G. A. Ivanov.  
RUSSIAN, bk, Issledovaniye Vibratsii i Prochnosti  
Detaley Aviadvigateley, 1967, pp 89-93.  
\*FTD-HT-23-811-68

Nonlinear Theory of Wings With Small  
Aspect Ratios, by S. D. Yermolenko,  
15 pp.  
RUSSIAN, per, Izvestiya Vysshikh  
Uchebnykh Zavedeniy. Aviatsionnaya  
Tekhnika, No 2, 1966, pp 9-18  
P100208868-V  
FTD-HT-67-177

On the Equation of the Relative Weights of an  
Aircraft, by N. A. Fomin.  
RUSSIAN, per, IVUZ. Aviatsionnaya Tekhnika,  
No 4, 1967, pp 149-154.  
\*FTD-HT-24-348-68

Methodology, Minimum Weather Takeoff and  
Landing from Soviet Airports.  
RUSSIAN, bk, Metodika Rascheta Manevrirovaniya  
a Opredeleniya Minimumov Pogody Dlya Valetai  
Posadki Samoletov v Aeroportakh Grazhdanskoy  
Aviatsii SSSR, 1967, pp 1-61.  
\*FTD-HT-24-367-68

Passenger Aircraft IL-62,  
RUSSIAN, bk, Passazhirskiy Samolet IL-62, 1968,  
pp 1-149.  
\*FTD-HT-24-331-68

## Scientific Aeronautics (Contd)

Peculiarities of the Optimization Process  
of High-Speed Soaring Flight, by Ye. P.  
Vachasov  
RUSSIAN, per, Samoletostroyeniye i Tekhnika  
Vozdushnogo Flota, No 9, 1967, pp 3-8.  
\*FTD-HT-23-852-68C

Target of Life, by A. S. Yakovlev,  
471 pp.  
RUSSIAN, bk, Tsel' Zhizni (Zapiski  
Aviakonstruktora), 1966, pp 1-543.  
P100231268-V  
FTD-HT-23-956-67

Determining Lift of a Wing Profile  
at Instantaneous Change in Angle of  
Attack, by A. A. Kosmodem'yanskiy,  
10 pp.  
RUSSIAN, per, Moscow. Universitet.  
Vestnik. Seriya I. Matematika,  
Mekhanika, No 5, 1965, pp 52-60.  
P100230768-V  
FTD-HT-67-427

A Heat-Shielding Design for Aircraft, by  
Yu. M. Petrov, A. S. Sherr, 2 pp.  
RUSSIAN, Patent 169,408. P100228568  
FTD-HT-67-127

Aircraft Doors, by Yu. F. Belous, G. P. Bily,  
2 pp.  
RUSSIAN, Patent 192527 (1011628/40-23) Class  
62b, 14/10. P100229268  
FTD-HT-23-966-67

Egyptian Supersonic Fighter History Discussed,  
5 pp.  
ARABIC, no. al-Tali'ah, 26 June 1968, pp 10-11.  
JPRS 46301

Aircraft AN-24B, by M. Vyletal, 9 pp.  
CZECH, per, Letecky Obsor, No 8, 1964,  
pp 228-230. P100241868-V  
FTD-HT-23-805-67

Director Discusses Czech Aviation Industry, by  
Josef Mlcoch, Stanislav Plasil, 10 pp.  
CZECH, per, A Revue, No 12, Jun 1968, pp 80-88.  
JPRS 46,279

Scientific  
Aeronautics (Contd)

New Light-Construction Methods in Synthetics for Lifting Parts in Aircraft Construction. Development of the Complete GFK Experimental Aircraft, L F U 205. GERMAN, bk, Leichtflugtechnik-Union GbH, 1968, pp 1-13.  
\*FTD-HT-23-796-68

The Results of the Test Conducted up to the Present Time, with the GFK-Elevator for the TRANSALL C 160, by Cartallieri. GERMAN, bk, Vereinigte Flugtechnische Werke GMBH, 1968, pp 2-8.  
\*FTD-HT-23-797-68

The TU-134, the Latest Soviet Turbojet Passenger Transport, 4 pp. HUNGARIAN, per, Repules, No 12, 1964, pp 4-5. P100218168-V  
FTD-HT-23-1023-67

Agriculture

Expanded Grain Production Urged in the Ukraine, by M. Sinita, 5 pp. RUSSIAN, np, Ekonomicheskaya Gazeta, No 26, June 1968, p 29.  
JPRS 46085

Improvements Needed in Vegetable Growing, by V. Varavka, V. Brun'ko, 6 pp. RUSSIAN, np, Ekonomicheskaya Gazeta, No 26, June 1968, pp 32.  
JPRS 46085

Soil Conservation Measures Urgently Needed, by A. Kiryukhin, 6 pp. RUSSIAN, np, Ekonomicheskaya Gazeta, No 27, June 1968, pp 30-31.  
JPRS 46180

Autonomous Financing Operations on Sovkholes, by V. Prosin, 5 pp. RUSSIAN, np, Ekonomicheskaya Gazeta, No 28, July 1968, p 30.  
JPRS 46180

Scientific  
Agriculture (Contd)

Problems of Mineral Fertilizer Production, by V. Brun'ko, N. Yanovskiy, 9 pp. RUSSIAN, np, Ekonomicheskaya Gazeta, No 29, Jul 1968, pp 18-19.  
JPRS 46,315

Improvements in RSFSR Grain Production, by L. Florent'yev, 12 pp. RUSSIAN, per, Ekonomika Sel'skogo Khozyaystva, No 6, 1968, pp 8-15.  
JPRS 46042

Kazakhstan: Major Granary of Nation Praised, by G. Mel'nik, 12 pp. RUSSIAN, per, Ekonomika Sel'skogo Khozyaystva, No 6, 1968, pp 16-23.  
JPRS 46042

Production of Grain in Ukraine Increases, by P. Doroshenko, 12 pp. RUSSIAN, per, Ekonomika Sel'skogo Khozyaystva, No 6, 1968, pp 24-31.  
JPRS 46042

Fertilizer Utilization and Increased Harvest, by A. Artyushin, 8 pp. RUSSIAN, per, Ekonomika Sel'skogo Khozyaystva, No 6, 1968, pp 103-107.  
JPRS 46042

Agricultural Procurements Deficiency Described, 10 pp. RUSSIAN, per, Ekonomika Sel'skogo Khozyaystva, No 7, 1968, pp 1-7.  
JPRS 46267

Grain Production Shortcomings in Latvian SSR, by V. Stroganov, 7 pp. RUSSIAN, per, Ekonomika Sel'skogo Khozyaystva, No 7, 1968, pp 13-17.  
JPRS 46267

Shortcomings in Land Reclamation Operations, by B. Ol'khovskaya, A. Dolenko, 8 pp. RUSSIAN, np, Izvestiya, 16 June 1968, p 3.  
JPRS 46085

Shortcomings in Land Reclamation Operations, by A. Dolenko, B. Ol'khovskaya, 9 pp. RUSSIAN, np, Izvestiya, 21 June 1968, p 3.  
JPRS 46085

Scientific  
Agriculture (Contd)

Legal Principles of Land Use Discussed, by  
R. Ivanov, 6 pp.  
RUSSIAN, np, Izvestiya, 3 Aug 1968, p 2.  
JPRS 46361

Kazakh Co Plenum Discusses Grain Harvest Plans,  
13 pp.  
RUSSIAN, np, Kazakhstanskaya Pravda, 31 July  
1968, pp 1-2.  
JPRS 46416

Agricultural Supply Needs Improvement, by I.  
Karlyuk, 8 pp.  
RUSSIAN, per, Material'no-Tekhnicheskoye  
Snabzheniye, No 5, 1968, pp 42-47.  
JPRS 46035

Agricultural Trends in CEMA and  
EEC Countries, by L. Zlomanov,  
G. Kozhevnikova, 11 pp.  
RUSSIAN, per, Mezhdunarodnyy Sel'-  
skokhozyaystvennyy Zhurnal, No 4,  
1968, pp 3-7.  
JPRS 46527

CEMA Mineral Fertilizer Output and  
Consumption, by V. Mordasov,  
I. Borodkin, 13 pp.  
RUSSIAN, per, Mezhdunarodnyy Sel'-  
skokhozyaystvennyy Zhurnal, Moscow,  
No 4, 1968, pp 8-13.  
JPRS 46527

International Mineral Fertilizer  
Machines Tested, by E. Stepanyants,  
A. Shcherlov, 10 pp.  
RUSSIAN, per, Mezhdunarodnyy Sel'-  
skokhozyaystvennyy Zhurnal, Moscow,  
No 4, 1968, pp 99-103.  
JPRS 46527

Cultivation and Harvesting of Sunflowers, 5 pp.  
RUSSIAN, np, Sel'skaya Zhizn', 15 June 1968, p 1.  
JPRS 46035

Shortcomings in Land Fish Breeding Discussed, by  
M. Sanyayev, 5 pp.  
RUSSIAN, np, Sel'skaya Zhizn', 13 July 1968, p 4.  
JPRS 46245

Scientific  
Agriculture (Contd)

New Draft of Land Legislation for USSR, 22 pp.  
RUSSIAN, np, Sel'skaya Zhizn', 26 July 1968, pp 1-2.  
JPRS 46361

Shortages of Tractor and Machine Parts,  
by V. Soldatov, 5 pp.  
RUSSIAN, np, Sel'skaya Zhizn', Moscow,  
15 August 1968, p 2.  
JPRS 46448

Leap Ahead in Soviet Agriculture Discussed,  
by N. Lemeshev, 11 pp.  
RUSSIAN, per, Voprosy Ekonomiki, No 7, 1968,  
pp 34-43.  
JPRS 46361

Grain Storage Facilities in the Kuban Noted, by  
N. Ryazantsev, T. Priyama, 8 pp.  
RUSSIAN, per, Zakupki Selskokhozyaystvennykh  
Produktov, No 7, 1968, pp 1-5.  
JPRS 46361

Problems of Agricultural Cooperatives  
Reviewed, by Omer Mero, 5 pp.  
ALBANIAN, np, Bashkimi, Tirana,  
20 July 1968, p 2.  
JPRS 46439

Tobacco Farmers Urged to Increase Yield, by  
T. Laco, A. Cerma, 8 pp.  
ALBANIAN, np, Zeri i Popullit, 29 May 1968, p 3.  
JPRS 46031

Sprinkler Method Used in Land Irrigation, 5 pp.  
ARABIC, np, al-Ahram (supplement), 10 July 1968,  
p 2.  
JPRS 46301

Technical Progress in Animal Husbandry, 6 pp.  
BULGARIAN, per, Zhivotnovodstvo, No 4, Apr  
1968, pp 1-6.  
JPRS 45935

Animal Husbandry Urged to Fulfill  
Plan Quotas, 6 pp.  
BULGARIAN, per, Zhivotnovodstvo,  
Sofia, No 6, 1968, pp 1-3.  
JPRS 46570

**Scientific  
Agriculture (Contd)**

Agricultural Price Changes Reviewed by Scientist,  
by Vladimir Janicek, 8 pp.  
CZECH, per, Socialistické Zemedelství, No 22, 31  
May 1968, p 5.  
JPRS 45887

Czech Veterinary Expedition in Mongolia Described,  
by Vacav Vasak, 9 pp.  
CZECH, per, Veterinarství, No 4, Apr 1968, pp 182-  
185.  
JPRS 45836

Development of Ferlo By Irrigation Urged,  
by Roland Diagne, 6 pp.  
FRENCH, np, Afrique Nouvelle, 25-31 Jul 1968,  
p 2.  
JPRS 46,357

Report Issued on 1967-1968 Cotton Production,  
6 pp.  
FRENCH, per, Bulletin de l'Afrique Noire, 24 July  
1968, pp 10417-10420.  
JPRS 46392

Congolese Agriculture Needs a New Start, 7 pp.  
FRENCH, per, Civilisations, Vol 18, No 1, 1968,  
pp 52-58.  
JPRS 46278

Crop and Weather Report Given for April, by  
Krumblegel, 5 pp.  
GERMAN, per, Feldwirtschaft, Jun 1968, pp 287-  
288.  
JPRS 45887

Crop and Weather Report, June 1968, by  
D. Krumblegel, 5 pp.  
GERMAN, per, Feldwirtschaft, No 8, Aug 1968,  
pp 311-314.  
JPRS 46,344

July 1968 Crop, Weather Report, Crop  
Predictions, by D. Krumblegel, 5 pp.  
GERMAN, per, Feldwirtschaft, East  
Berlin, September 1968, pp 431-432.  
JPRS 46570

National Plant Protection Forecasting  
Network Begins, by Sandor Erdei, 6 pp.  
HUNGARIAN, np, Magyar Mezőgazdaság,  
Budapest, 31 July 1968, pp 14-15.  
JPRS 46439

**Scientific  
Agriculture (Contd)**

Local Industrial Plants Must Be Developed by  
All the People, by Im Kyong-sik, 14 pp.  
KOREAN, per, Kulloja, No 6, June 1968,  
pp 45-51.  
JPRS 46377

Instructions on Raising Young Livestock Given,  
12 pp.  
MONGOLIAN, per, Hodoo Aj Ahui, No 1, 1967, pp 16-  
24.  
JPRS 45836

Proper Care and Utilization of Forests  
Urged, by O. Tobuu, 5 pp.  
MONGOLIAN, per, Hodoo Aj Ahui, Ulan  
Bator, No 1, 1967, pp 67-70.  
JPRS 46426

Tasks of Federation of Agricultural Coopera-  
tives, by S. Iubsanderj, 5 pp.  
MONGOLIAN, per, Hodoo Aj Ahui, No 3, 1967,  
pp 16-18, 31.  
JPRS 46,350

Protection of Livestock from Blizzards Urged,  
22 pp.  
MONGOLIAN, np, Sotsialist Hodoo Aj Ahui, 27 Jun  
1968, pp 4, 5.  
JPRS 46,249

GUCWA Discusses Effects of New Farm Policy,  
by Stanislaw Gucwa, 7 pp.  
POLISH, np, Chlopska Droga, 14-17 Apr 1968,  
pp 5-6.  
JPRS 45685

New Varieties of Winter Wheat Discussed,  
by Stanislaw Mroz, 9 pp.  
POLISH, per, Nowe Rolnictwo, Warsaw,  
1-15 July 1968, pp 27-30.  
JPRS 46514

Good Land Management As a Problem of National  
Interest, by N. Gionan, 5 pp.  
RUMANIAN, per, Agricultura Socialista, 16 May  
1968, pp 1 & 4.  
JPRS 45685

Scientific  
Agriculture (Contd)

Officials Outline Mechanization of Agriculture Plan, 13 pp.  
RUMANIAN, per, Buletinul Oficial al Republicii Socialiste Romania, No 74, part I, 7 June 1968, pp 572-577.  
JPRS 46031

Scientific Research in Agriculture Surveyed, by Grigore Obrejanu, 8 pp.  
RUMANIAN, np, Viata Economica, 26 July 1968, p 5.  
JPRS 46393

Agricultural Stagnation Noted in Vojvodina, by Aleksandar Mantic, 5 pp.  
SERBO-CROATIAN, np, Politika, 13 Aug 1968, p 7.  
JPRS 46393

1967 Agricultural Production Reviewed, by Milovan Rakovic, Danilo Babic, 9 pp.  
SERBO-CROATIAN, per, Poljoprivreda, Apr 1968, pp 30-36.  
JPRS 46040

Revolution Brought Stability to Sugar Producers, 5 pp.  
SPANISH, np, Granma, 15 Jun 1968, p 5.  
JPRS 46,285

Ten Million Ton Annual 1970-80 Sugar Production, by Joaquin Oramas, 6 pp.  
SPANISH, np, Granma, 22 July 1968, p 3.  
JPRS 46340

Water Resources Institute Expands Irrigation Systems, by Lisanka, 7 pp.  
SPANISH, per, Verde Olivo, 28 July 1968, pp 73-77.  
JPRS 46373

Hai Hung Province Sets Objectives for Agriculture, by Nguyen Hoai Bao, 5 pp.  
VIETNAMESE, np, Nhan Dan, Hanoi, 6 June 1968, p 2.  
JPRS 46436

Measures to Improve Thai Binh Rice Crop Listed, by Huu Tho, 14 pp.  
VIETNAMESE, np, Nhan Dan, 7. 8 June 1968.  
JPRS 46041

Scientific  
Agriculture (Contd)

Thanh Oai Ends 5th-Month, Starts 10-th Month Crop, by Vu Can, Ho Van, 7 pp.  
VIETNAMESE, np, Nhan-dan, 12 June 1968, p 2.  
JPRS 46078

Nam Ha Organizes to Increase Rice Yield, by Van Son, 7 pp.  
VIETNAMESE, np, Nhan Dan, 14 June 1968, p 2.  
JPRS 46022

Tien Son District Prepares for 10th-Month Crop, by Vanh Hong, Mai Phong, 7 pp.  
VIETNAMESE, np, Nhan-dan, 17 June 1968, p 2.  
JPRS 46190

Covered Furrows Increase Yield of Sweet Potatoes, by Pham Ngoc Kinh, 6 pp.  
VIETNAMESE, np, Nhan-dan, 18 June 1968, p 2.  
JPRS 46199

Local Industry Helps Agriculture Attain Goals, 14 pp.  
VIETNAMESE, np, Nhan Dan, Hanoi, 10, 11 August 1968, p 2.  
JPRS 46555

Mountain Area Agriculture, Forestry Reviewed, by Tran Quoc Manh, 15 pp.  
VIETNAMESE, per, Tuyen Huan, Hanoi, No 8, August 1968, pp 35-41.  
JPRS 46594

Astronomy & Astrophysics

Isophots of Zodiacal Light and Its Terrestrial Component, by N. B. Divari, N. I. Komarnitskaya.  
RUSSIAN, per, Astronomicheskii Vestnik, Vol II, No 2, 1968, pp 102-107. P910226158-V  
Sci Tech Info Facility  
ST-AA-ID-10731

Determination of the Photographic Position of an Object With the Aid of Two and Three Reference Stars, by A. N. Deych.  
RUSSIAN, per, Astronomicheskii Zhurnal, Vol 25, No 2, 1968, pp 44-58. P910172158-V  
Sci Tech Info Facility  
ST-0A-GM-10712



Scientific  
Astronomy & Astrophysics (Contd)

Investigation of Venus' Backscattering Diagram at 40 CM, by Yu. N. Aleksandrov, B. I. Kusnetsov. RUSSIAN, per, Astronomicheskii Zhurnal, Vol 45, No 2, 1968, p 371-377. P910172368-V  
Sci Tech Info Facility  
ST-LPS-RA-10720

Materials for Astronomical Mirrors, by Zh. M. Loretsyan. RUSSIAN, rpt, Soobshcheniya Byurakanskoy Observatorii, Vypusk 38, Str. 72-87 Izd-vo V. A. Ambartsumyana Akademii Nauk Arayanskoy SSR, 1967. P910171868  
Sci Tech Info Facility  
ST-MR-CA-10702

Re-Reduction of Observations of FK5Z Stars into the FK4 System, by A. G. Osborneva, 8 pp. RUSSIAN, per, Trudy 17-y Astro-metricheskoy Konferentsii SSSR (Pulkovo, 31 Maya-3 Iyunya 1966), Leningrad, 1967, pp 65-70. JPRS 46531

Results of Use of Some Filters for Solar Meridian Observations, by O. T. Markina, G. M. Petrov, 6 pp. RUSSIAN, per, Trudy 17-y Astro-metricheskoy Konferentsii SSSR (Pulkovo, 31 Maya-3 Iyunya 1966), Leningrad, 1967, pp 195-199. JPRS 46531

Methods of Flexure Determination, by N. V. Nazarova, A. S. Kharin, 6 pp. RUSSIAN, per, Trudy 17-y Astro-metricheskoy Konferentsii SSSR (Pulkovo, 31 Maya-3 Iyunya 1966), Leningrad, 1967, pp 202-205. JPRS 46531

Preliminary Data on the Optics of an Astrometric Reflector, by Yu. S. Streletskiy, 5 pp. RUSSIAN, per, Trudy 17-y Astro-metricheskoy Konferentsii SSSR (Pulkovo, 31 Maya-3 Iyunya 1966), Leningrad, 1967, pp 208-211. JPRS 46531

Scientific  
Astronomy & Astrophysics (Contd)

Investigation of Magnetic Fields on the Sun, by B. A. Ioshpa, V. N. Obridko. RUSSIAN, per, Vestnik Akademii Nauk SSSR, Vol 4, 1968, pp 46-50. P910219968  
Sci Tech Info Facility  
ST-SP-10727

Computation of the Angle of Elevation of the Sun, by Tao Zu-wen. CHINESE, per, Acta Meteorologica Sinica, Vol 33, No 3, Aug 1963, pp 402-407. \*AFCL

Correction of the Moon's Position According to Observations During the Annular Solar Eclipse of May 20, 1966 in Saronis, Greece, by Hermann Haupt, Maria Pirneis, 33 pp. GERMAN, per, Annalen der Universitaets-Sternwarte, Wien, Vol 27, No 2, 1967, pp 67-70, 73-77, and 103-106. P500189968-V  
Dept of Navy NIO tr 2645

Atmospheric Sciences

Atmospheric Turbulence Affecting Aircraft Flight, by N. Z. Pinus, 193 pp. RUSSIAN, bk, Atmosfer'naya Turbulentnost', Vliyayushchaya Na Polet Samoletov, 1962, pp 1-167. P100209168-V  
FTD-HT-67-185

Rotation and Orientation of Cosmic Dust Particles, by A. Z. Dolginov. RUSSIAN, per, Doklady A.N. SSSR, Astronomiya, Vol 179, No 5, 1968, pp 1070-1073. P910172068-V  
Sci Tech Info Facility  
ST-ID-10718

On the Disruption of the Reciprocity Principle During the Daytime Propagation of Super Long Radiowaves Around the Earth, by P. E. Krasnushkin, R. B. Baybulatov. RUSSIAN, per, Doklady A.N. SSSR, Geofizika, Vol 171, No 2, 1966, pp 340-343. P910171968  
Sci Tech Info Facility  
ST-RWP-AN-MAT-10717

**Scientific  
Atmospheric Sciences (Contd)**

Experimental Study of the Dependence of Atmospheric Absorption at the 4.1 mm Wavelength on Altitude above Sea Level, by A. G. Kislyakov.

RUSSIAN, per, AN SSSR. Izvestiya. Fizika Atmosfery i Okeana, Vol 4, No 3, Mar 1968, pp 321-327.

\*FTD-MT-24-339-68

Wave Propagation Through a Turbulent Atmosphere, by V. I. Tatarskiy.

RUSSIAN, bk, Kosprostranstviye Voln V Turbulentnoy Atmosfere, 1967, pp 138-540.

ACSI J-4598

ID 2204013168

Estimating the Wind Loads on High Structures by S. S. Zilitinskovich.

RUSSIAN, per, Meteorologiya i Gidrologiya, No 6, 1967, pp 41-49.

\*FTD-MT-24-360-68

Meteorology and Hydrology, 178 pp.

RUSSIAN, per, Meteorologiya i Gidrologiya, No 5, May 1968, pp 3-126.

JPRS 46184

Hydrodynamic Scheme for Forecasting Oscillations of the Tropopause, by V. M. Kadyshnikov, 14 pp.

RUSSIAN, per, Mirovoy Meteorologicheskoy Tsentr. Trudy. Voprosy Gidrodinamicheskogo Kratkosrochnogo Prognosa Pogody i Mesometeorologii, No 14, 1966, pp 59-70.

PI00243568-V

FTD-MT-24-373-67

On the Question of Calculating the Vertical Wind Profile in the Boundary Layer of the Atmosphere, by L. A. Klyunikova.

D. L. Laykhtman, 31 pp.

RUSSIAN, per, Leningrad. Glavnaya Geofizicheskaya Observatoriya. Trudy, No 167, 1965, pp 3-28.

PI00241568-V

FTD-HT-23-804-67

Certain Results of Experimental Investigations of the Turbulence of the Atmosphere with Help of Radiosondes, by V. P. Belyayev.

T. G. Beltadse, 58 pp.

RUSSIAN, per, Trudy. Tsentral'naya Aerologicheskaya Observatoriya, No 54, 1964, pp 4-52.

PI00226268-V

FTD-MT-24-207-67

**Scientific  
Atmospheric Sciences (Contd)**

Meteorological Conditions of Aircraft Landing, by N. K. Sachkov, 25 pp.

RUSSIAN, per, Trudy. Tsentral'naya Aerologicheskaya Observatoriya, No 68, 1965, pp 3-24.

PI00243668-V

FTD-MT-24-322-67

Turbulence in the Lower Layer of the Atmosphere and in Low-Level Clouds, by V. Ye. Minervin.

RUSSIAN, per, Trudy. Tsentral'naya Aerologicheskaya Observatoriya, No 71, 1966, pp 76-91.

\*FTD-MT-24-352-68

Bulgarian Climatic Resources Described, by Dimitur Y. Dimitrov, 6 pp.

BULGARIAN, per, Geografiya, No 5, May 1968, pp 1-4.

JPRS 46302

Characteristic Parameters and Dynamical Equations of Atmospheric Motions, by Zeng Qing-zun

CHINESE, per, Acta Meteorologica Sinica, Vol 33, No 4, Nov 1963, pp 472-483.

\*AFCL

Equation of the Tendency of Atmospheric Stability, by S. Brandeis, 3 pp.

CZECH, per, Meteorologické Zpravy, No 5, 1965, p 137-

PI00226668-V

FTD-HT-23-639-67

Calculation of the Large-Scale Horizontal Exchange Tensor, by O. Locke, 12 pp.

GERMAN, per, Zeitschrift Fur Meteorologie, Vol 17, 1965,

pp 63-68.

PI00227768-V

FTD-HT-67-441

Measures to Fight Blizzards Discussed, Adopted, 6 pp.

MONGOLIAN, np, Sotsialist Hodo Ai Abuy, Ulan Bator, 11 April 1968, p 1.

JPRS 46426

Scientific  
Behavioral & Social Sciences

An Experimental Investigation of the Self-Adaptation Functions of the Human Operator, by G. A. Sergeyev, 20 pp.  
RUSSIAN, bk, AN SSSR. Institut Avtomatiki i Telemekhaniki. "Samoobuchayushchiyesya Avtomaticheskiye Sistemy", 1966, pp 222-232  
P100204168-V  
FTD-HT-67-337

Meditations About Reception, by V. Stoletov, 11 pp.  
RUSSIAN, np, Izvestiya  
P100204268-V  
FTD-HT-67-320

The Advantage of Closer Union Between Educational Institutions and Industry (Descriptive Title), by K. Kolesnikov, 6 pp.  
RUSSIAN, np, Izvestiya, p 4.  
P100219468  
FTD-HT-67-319

Order for Management, by V. Davydchenkov, O. Latsis. 8 pp.  
RUSSIAN, np, Izvestiya, 13 Apr 1966.  
P100201968-V  
FTD-HT-67-410

Who Should Be A Scientist?, by D. Tatiyev, 6 pp.  
RUSSIAN, np, Izvestiya, 6 Jul 1966, p 3.  
P100202068  
FTD-HT-67-409

Attributing Greater Responsibility for Hooliganism, by N. Podgornyy, N. Georgadze, 7 pp.  
RUSSIAN, np, Izvestiya, No 176, 28 Jul 1966, p 2.  
P100208568  
FTD-HT-67-328

A Learned Man at the Faculty, by S. Spivak, 8 pp.  
RUSSIAN, np, Izvestiya, 29 Sept 1966, p 3.  
P100203368  
FTD-HT-67-322

Scientific  
Behavioral & Social Sciences (Contd)

Enthusiasm Plus Encouragement, by V. Dovgopol, 4 pp.  
RUSSIAN, np, Izvestiya, 11 Oct 1966, p 5.  
P100204368  
FTD-HT-67-321

The Army, Politics and People, by A. Iskenderov, 9 pp.  
RUSSIAN, np, Izvestiya, 17 Jan 1967, p 2.  
P100200668  
FTD-HT-67-308

Experiment in Application of Methods of Programmed Instruction, by S. L. Fradkin, 9 pp.  
RUSSIAN, per, Moscow. Sredneye Spetsial'noye Obrazovaniye, No 8, 1966, pp 39-44. P100242768-V  
FTD-MT-24-363-67

Experience of Realizing an Inverted Type of Information Retrieval System Using a Digital Computer, by V. L. Graysukh, N. N. Mikheyeva, 15 pp.  
RUSSIAN, per, Nauchno-Tekhnicheskaya Informatsiya, No 3, 1965, pp 21-26. P100243768-V  
FTD-MT-24-349-67

Assurance of Sufficient pl (x) Characteristics in Pattern Recognition, by B. M. Kurilov.  
RUSSIAN, rpt, Sb. Vychisl. Sistemy. Vpy. 22, Novosibirsk, "Nauka", 1966, pp 21-37.  
\*FTD-HT-23-880-68C

Alphabet of Recognition Patterns, by V. N. Yelkina  
RUSSIAN, rpt, Sb. Vychisl. Sistemy. Vyp. 22, Novosibirsk, "Nauka", 1966, pp 59-76.  
\*FTD-HT-23-880-68C

Biological & Medical Sciences

Angioma of the Uterus, by M. G. Zholnerovskii, 5 pp.  
RUSSIAN, per, Akush. Ginek, Moscow, Vol 41, Sept-Oct 1965, pp 120-122.  
Dept of Navy/1948 1279

Scientific  
Biological & Medical Sciences (Contd)

Decree of the Supreme Soviet of Azerbaydzhan SSR on the Present Status of and Measures to Improve Medical Service to the Population of the Republic, by M. Iskenderov, Z. Shukyurova, 8 pp.  
RUSSIAN, np, Bakinskiy Rabochiy, 21 May 1968, pp 1-2.  
JPRS 46092

Report by the Minister of Public Health of Azerbaydzhan SSR on the Present Status of and Measures to Improve Medical Service to the Population of the Republic, by F. M. Vekilov, 11 pp  
RUSSIAN, np, Bakinskiy Rabochiy, 21 May 1968, pp 2-3.  
JPRS 46092

State of Public Health in Azerbaydzhan SSSR, by K. G. Aliyev, 7 pp.  
RUSSIAN, np, Bakinskiy Rabochiy, 10 July 1968, p 3.  
JPRS 46092

Nucleic Acids and Plant Evolution, by V. F. Vanyushin, A. N. Belozerskiy, 31 pp.  
RUSSIAN, bk, Biologiya Avtotrofnykh Mikroorganizmov, 1966, pp 7-25  
F100200468-V  
FTD-HT-23-522-67

Photosynthetic Organisms and the Evolution of Photosynthesis, by Ye. N. Kondrat'yeva, 24 pp.  
RUSSIAN, bk, Biologiya Avtotrofnykh Mikroorganizmov, 1966, pp 26-37  
F100200468-V  
FTD-HT-23-522-67

A Microbiologist's View of Biochemical Evolution, by V. D. Fedorov, 23 pp.  
RUSSIAN, bk, Biologiya Avtotrofnykh Mikroorganizmov, 1966, pp 38-50  
F100200468-V  
FTD-HT-23-522-67

Scientific  
Biological & Medical Sciences (Contd)

Photosynthesis and the Assimilation of Nitrate Nitrogen, by A. A. Nichiporovich, G. A. Slobodakaya, 11 pp.  
RUSSIAN, bk, Biologiya Avtotrofnykh Mikroorganizmov, 1966, pp 51-56  
F100200468-V  
FTD-HT-23-522-67

Study of the Products of Chemosynthesis in Nitrosomonas Europaea Using  $C^{14}$ , by A. K. Romanova, N. G. Doman, 20 pp.  
RUSSIAN, bk, Biologiya Avtotrofnykh Mikroorganizmov, 1966, pp 57-67  
F100200468-V  
FTD-HT-23-522-67

Products of Photosynthetic  $C^{14}O_2$  Assimilation by Synchronous Chlorella Pyrenoidosa Culture at Different Stages of Its Development, by N. G. Doman, R. Ya. Shkol'nik, 22 pp.  
RUSSIAN, bk, Biologiya Avtotrofnykh Mikroorganizmov, 1966, pp 68-80  
F100200468-V  
FTD-HT-23-522-67

Study of Phosphorus Metabolism in Germinating Cotton Seeds, by M. N. Valikhanov, I. S. Kulayev, 24 pp.  
RUSSIAN, bk, Biologiya Avtotrofnykh Mikroorganizmov, 1966, pp 81-93  
F100200468-V  
FTD-HT-23-522-67

Differential Photometric Study of Light-Induced Conversions of Pigments in Cells of Photosynthetic Bacteria, by N. V. Karapetyan, A. A. Krasnovskiy, 25 pp.  
RUSSIAN, bk, Biologiya Avtotrofnykh Mikroorganizmov, 1966, pp 94-107  
F100200468-V  
FTD-HT-23-522-67

Scientific  
Biological & Medical Sciences (Contd)

Participation of Different Forms of Bacterioviridine and Bacteriochlorophyll in Bacterial Photosynthesis and Migration of Energy Between Forms of These Pigments, by Yu. Ye. Yerokhin, A. A. Krasnovskiy, 13 pp.  
RUSSIAN, bk, Biologiya Avtotrofnykh Mikroorganizmov, 1966, pp 108-114  
FI00200468-V  
FTD-HT-23-522-67

Effect of Cultural Conditions on Carotene Production by Dunaliella Salina, by I. L. Rabotnova, Ye. S. Mil'ko, 16 pp.  
RUSSIAN, bk, Biologiya Avtotrofnykh Mikroorganizmov, 1966, pp 115-123  
FI00200468-V  
FTD-HT-23-522-67

Physiological Properties of Bacterial Photosynthesis, by V. D. Fedorov, 13 pp.  
RUSSIAN, bk, Biologiya Avtotrofnykh Mikroorganizmov, 1966, pp 124-130  
FI00200468-V  
FTD-HT-23-522-67

Accumulation of Organic Matter in Autotrophic Algae Cultures, by M. N. Pimenova, I. V. Maksimova, 22 pp.  
RUSSIAN, bk, Biologiya Avtotrofnykh Mikroorganizmov, 1966, pp 131-141  
FI00200468-V  
FTD-HT-23-522-67

Physiological Properties of Chlorella in Relation to Prolonged Intensive Cultivation, by M. G. Vladimirova, M. I. Tauts, 23 pp.  
RUSSIAN, bk, Biologiya Avtotrofnykh Mikroorganizmov, 1966, pp 142-153  
FI00200468-V  
FTD-HT-23-522-67

Scientific  
Biological & Medical Sciences (Contd)

Physiological and Biochemical Aspects of Directed Production of Valuable Metabolites During Intensive Algae Cultivation, by G. L. Klyachko-Gurvich, V. Ye. Semenenko, 10 pp.  
RUSSIAN, bk, Biologiya Avtotrofnykh Mikroorganizmov, 1966, pp 154-159  
FI00200468-V  
FTD-HT-23-522-67

Interrelations of Algae With Bacteria and Other Microorganisms in Mixed Cultures, by I. V. Maksimova, 48 pp.  
RUSSIAN, bk, Biologiya Avtotrofnykh Mikroorganizmov, 1966, pp 160-183  
FI00200468-V  
FTD-HT-23-522-67

Physiological and Ecological Relations and Autotrophic Photosynthetic Microorganisms, by M. M. Telitchenko, M. V. Gusev, 14 pp.  
RUSSIAN, bk, Biologiya Avtotrofnykh Mikroorganizmov, 1966, pp 184-191  
FI00200468-V  
FTD-HT-23-522-67

The Oxidation of Hydrocarbons by Microorganisms, by L. A. Mavrina, 21 pp.  
RUSSIAN, bk, Biologiya Avtotrofnykh Mikroorganizmov, 1966, pp 192-202  
FI00200468-V  
FTD-HT-23-522-67

The Use of Radioactive Carbon Isotopes in Studying Photosynthesis and Chemosynthesis in Reservoirs, by S. I. Kuznetsov, 14 pp.  
RUSSIAN, bk, Biologiya Avtotrofnykh Mikroorganizmov, 1966, pp 203-210  
FI00200468-V  
FTD-HT-23-522-67

Sulfide Oxidation by Thiobacillus Ferrooxidans, by N. N. Lyalikova, 10 pp.  
RUSSIAN, bk, Biologiya Avtotrofnykh Mikroorganizmov, 1966, pp 211-216  
FI00200468-V  
FTD-HT-23-522-67

**Scientific  
Biological & Medical Sciences (Contd)**

Iron Bacteria on the Volcanoes of  
Kunashir Island, by G. A. Zavarzin,  
6 pp.  
RUSSIAN, bk, Biologiya Avtotrofnykh  
Mikroorganizmov, 1966, pp 217-220  
P100200468-V  
FTD-HT-23-522-67

The Role of Autotrophic Bacteria in  
the Oxidation of Volcanogenic Sulfur,  
by M. V. Ivanov, G. I. Karavayko, 14 pp.  
RUSSIAN, bk, Biologiya Avtotrofnykh  
Mikroorganizmov, 1966, pp 221-228  
P100200468-V  
FTD-HT-23-522-67

Biology and Control of Dreissena by B. K.  
Shtegman, 145 pp.  
RUSSIAN, bk, Biologiya Dreisseny i Bor'ba S  
Ney, 1964.  
CFETI TT 67-51396

Man and Technology, by V. P. Zinchenko,  
G. L. Smolyan, 72 pp.  
RUSSIAN, bk, Chelovek i Tekhnika (Sistemy  
Upravleniya i Inzhenernaya Psikhologiya),  
1965, pp 3-48. P1002445168  
FTD-MT-24-328-67

Behavior of Living Organisms in Radiation  
Fields, by N. G. Darinskaya, G. M. Pravdina,  
16 pp.  
RUSSIAN, bk, Doklady USSR, Gosudarstvennyy  
Komitet po Issledovaniyu Atomnoy Energii,  
1965, pp 1-19. P100244468-V  
FTD-MT-24-254-67

Pharmacognosia, by M. D. Shupinskaya,  
V. N. Karpovich, 510 pp.  
RUSSIAN, bk, Farmakognosiya, 1963,  
pp 1-367  
P100210560-V  
FTD-HT-23-519-67

**Scientific  
Biological & Medical Sciences (Contd)**

Biochemical Bases of the Regulation  
of the Speed of Growth of Micro-  
organisms, by N. D. Iyerusalimskiy,  
14 pp  
RUSSIAN, per, An SSSR. Izvestiya,  
Seriya Biologicheskaya, No 3, 1967,  
pp 339-350  
P100163568-V  
FTD-MT-24-244-67

The Dynamics of Pulse Waves of  
Intracranial Pressure During Trans-  
verse Overloads Up to 40 g, by  
Yu. Ye. Moskalenko, O. G. Gasenko,  
10 pp  
RUSSIAN, per, An SSSR. Izvestiya,  
Seriya Biologicheskaya, No 3, 1967,  
pp 396-403  
P100163568-V  
FTD-MT-24-244-67

Problems in Heart Transplantation,  
by B. V. Petrovskiy, 5 pp.  
RUSSIAN, per, Kardiologiya, Moscow,  
No 6, 1968, pp 3-6.  
JPRS 46536

Massive Hydrothorax As A Complication in  
Hepatic Lesions, by M. S. Shneider, 8 pp.  
RUSSIAN, per, Kazan. Med. Zhur, Vol 44, Sept-  
Oct 1963, pp 66-68.  
Dept of Navy/NMS 1272

On the Problem of Hemangioendothelioma of the  
Stomach, by N. S. Torgushina, 6 pp.  
RUSSIAN, per, Khir, Moscow, Vol 40, Aug 1964,  
pp 91-93.  
Dept of Navy/NMS 1278

Development of Emergency Surgical Care in the  
USSR, by M. I. Kuzin, 10 pp.  
RUSSIAN, per, Khirurgiya, Moscow, No 6, 1968,  
pp 4-11.  
JPRS 46537

Deterministic Models of Epidemics for Territories  
with a Transportation Network, by O. V. Baroyan,  
L. A. Rvachev, 16 pp.  
RUSSIAN, per, Gibernetika, No 3, 1967, pp 67-74.  
JPRS 46399

**Scientific  
Biological & Medical Sciences (Contd)**

Prospectus — Kiev Scientific Research Institute of Experimental and Clinical Oncology, by R. E. Kavetskiy.  
RUSSIAN, bk, Kievskiy Nauchno-Issledovatel'skiy Institut Eksperimental'noy i Klinicheskoy Onkologii, 1967, pp 1-46.  
ACSI J-5209  
ID 2204015268

Urgent Problems of Pharmacology and Pharmacotherapy, by V. Kh. Vasilenko, M. A. Zhukovskiy, 10 pp.  
RUSSIAN, per, Klinicheskaya Meditsina, Moscow, No 7, 1968, pp 3-8.  
JPRS 46533

Medical Science in the Service of Soviet Public Health, by K. V. Bunin, 15 pp.  
RUSSIAN, per, Klinicheskaya Meditsina, Moscow, No 7, 1968, pp 8-16.  
JPRS 46533

Space Biology and Medicine  
RUSSIAN, per, Kosmicheskaya Biologiya i Meditsina, Vol 2, No 3, 1968, pp 1-94.  
JPRS 46,456

Space Cardiology, by V. V. Parin.  
RUSSIAN, bk, Kosmicheskaya Kardiologiya, 1967, pp 1-206.  
\*FTD-MT-24-337-68

Cosmic Research in Genetics, by G. P. Parfenov  
RUSSIAN, per, Kosmicheskie Issledovaniya, Vol V, No 2, 1967, pp 140-155.  
\*Dept of Navy/MNS 1293

Space Plant-Growing, by V. r. Dadykin, 59 pp.  
RUSSIAN, per, Kosmicheskoye Rasteniygvozhdeniye, Biology Series No 1, 1968, 64 pp.  
JPRS 46306

Short Handbook on Space Biology and Medicine, RUSSIAN, bk, Kratkiy Spravochnik po Kosmicheskoy Biologii i Meditsine, 1967, pp 1-368.  
\*FTD-MT-23-835-68C

**Scientific  
Biological & Medical Sciences (Contd)**

The Treatment of Patients With Hypertonia by Electroneurosis, by G. V. Sergeyev, 130 pp.  
RUSSIAN, per, Lecheniye Elektromyotom Bol'nykh Gipertonicheskoy Bol'shn'yu Pod Kontrolom Issledovaniya Ikh Vysokey Nervnoy Regulyatsii, 1965, pp 73-203. P100241368-V  
FTD-MT-23-851-67

Device for the Calculation and Modeling of Neurons (Nerve Cells), by V. A. Ganzin, R. M. Granovskaya, 8 pp.  
RUSSIAN, per, Leningrad. Universitet. Kafedra Vychislitel'noy Matematiki i Vychislitel'nyy Tsentr. Vychislitel'naya Tekhnika i Voprosy Programirovaniya, No 3, 1964, pp 84-90.  
P100230368-V  
FTD-MT-23-540-67

Bioelectric Control, by I. Akulinichev, 5 pp.  
RUSSIAN, np, Meditsinskaya Gazeta (Navy), pp 1.  
P100184868  
FTD-MT-67-282

Building Lag Hurts Health Services in USSR, 6 pp.  
RUSSIAN, np, Meditsinskaya Gazeta, 9 May 1968, p 2.  
JPRS 45694

Material on the World-Wide Distribution of Scrub Typhus, by I. V. Tarevich.  
RUSSIAN, bk, Meditsinskaya Geografiya, 1966, 1968, pp 237-272.  
ACSI J-5406  
ID 2204017769

Fifty Years of Soviet Public Health: Organization of Control of Malaria and Helminthiasis, 5 pp.  
RUSSIAN, per, Meditsinskaya Parazitologiya i Parazitarnyye Bol'szn, Vol 46, No 3, 1968, pp 259-262.  
JPRS 46409

data on epidemiology of Tick-borne encephalitis in the Zone of Construction of Sayano-Shushenskaya hydroelectric Power Station, by E. I. Fastovskaya, I. N. Kul'vinova, 11 pp.  
RUSSIAN, per, Meditsinskaya Parazitologiya i Parazitarnyye Bolezni, Vol 46, No 3, 1968, pp 263-270.  
JPRS 46409

Some of the Distinctive Features of Tick-Borne encephalitis, by Yu. M. Tsirkov, 7 pp.  
RUSSIAN, per, Meditsinskaya Parazitologiya i Parazitarnyye Bolezni, Vol 46, No 3, 1968, pp 270-274.  
JPRS 46409

experience in Estimating Intensity of Infection with Tick-Borne Encephalitis, by D. A. L'vov, L. N. Bol'shev, 8 pp.  
RUSSIAN, per, Meditsinskaya Parazitologiya i Parazitarnyye Bolezni, Vol 46, No 3, 1968, pp 274-279.  
JPRS 46409

Investigation of a Natural Immune Group of Goats of Different Ages in a Focus of Tick-Borne encephalitis, by E. I. Korenberg, A. A. Pchelkina, 6 pp.  
RUSSIAN, per, Meditsinskaya Parazitologiya i Parazitarnyye Bolezni, Vol 46, No 3, 1968, pp 279-282.  
JPRS 46409

Organisation and Simulation of an Acoustic Analyser, by V. A. Dolyatovskiy, 12 pp.  
RUSSIAN, per, Modelirovaniye v Biologii i Meditsine, Vol 2, 1966, pp 72-84.  
JPRS 46275

Notes on Space Physiology, by V. V. Parin.  
RUSSIAN, bk, Ocherki po Kosmicheskoy Fiziologii, 1967, pp 1-135.  
\*FTD-MT-24-338-68

Endotheliora of the Thyroid Gland, by I. L. Gurin, 5 pp.  
RUSSIAN, per, Probl. Endoka. Gormonoter., Vol 11, Jul-Aug 1965, pp 57-59.  
Dept of Navy/MNS 1277

Current State of the Problem of Plasma Substitutes from Gelatin, by T. V. Znamenskaya, 22 pp.  
RUSSIAN, per, Problemy Gematologii i Perelivaniya Krovi, June 1968, pp 53-60.  
JPRS 46371

Basic Results of and Prospects for the Development of Hematology and Blood Service in the USSR, by I. A. Maslitskiy, 7 pp.  
RUSSIAN, per, Problemy Gematologii i Perelivaniya Krovi, No 7, July 1950, pp 3-7.  
JPRS 46367

Autotrophic Organisms as Components of Closed Ecological Systems, by A. A. Nichiporovich, 12 pp.  
RUSSIAN, bk, Problemy sozdaniya zamknytykh ekologicheskikh sistem, 1967, pp 5-17.  
JPRS 45837

Modern Trends in the Development of Space and Submarine Human Life-Support Systems, by G. I. Voronin, 20 pp.  
RUSSIAN, bk, Problemy sozdaniya zamknytykh ekologicheskikh sistem, 1967, pp 22-44.  
JPRS 45837

The Biosphere and Closed Biological Systems, by G. M. Lisovskiy, 7 pp.  
RUSSIAN, bk, Problemy sozdaniya zamknytykh ekologicheskikh sistem, 1967, pp 44-51.  
JPRS 45837

Study of the Possibility of Growing Head Cabbage under Low Light Intensities, by I. T. Nilovskaya, 5 pp.  
RUSSIAN, bk, Problemy sozdaniya zamknytykh ekologicheskikh sistem, 1967, pp 55-60.  
JPRS 45837

Preliminary Study of Chlorella Suitability for Feed in Experimentation on White Rats, by Ye. I. Kalent'yeva, 5 pp.  
RUSSIAN, bk, Problemy sozdaniya zamknytykh ekologicheskikh sistem, 1967, pp 67-72.  
JPRS 45837

Certain Characteristics of a Population of Chlorella as a Member of a Closed Ecological System, by G. I. Meleshko, 6 pp.  
RUSSIAN, bk, Problemy sozdaniya zamknytykh ekologicheskikh sistem, 1967, pp 73-78.  
JPRS 45837



Growth and Development of a Culture of  
Chlorella Pyrenoidosa Frings. II. Depend-  
ing on Form of Nitrogen Nutrient, by  
S. I. Legerova, 11 pp.  
RUSSIAN, bk, Problemy sozdaniya zamknytykh  
ekologicheskikh sistem, 1967, pp 78-91.  
JPRS 45837

Continuous Cultivation of Chlorella with  
Repeated Utilization of the Medium, by  
R. I. Kuz'mina, 6 pp.  
RUSSIAN, bk, Problemy sozdaniya zamknytykh  
ekologicheskikh sistem, 1967, pp 91-96.  
JPRS 45837

Microflora of an Algae/Bacteria Community  
Processing Human Excreta, by M. S. Rerberg,  
6 pp.  
RUSSIAN, bk, Problemy sozdaniya zamknytykh  
ekologicheskikh sistem, 1967, pp 96-101.  
JPRS 45837

An Experiment in Cultivating Chlorella on  
Biologically Mineralized Product of Human  
Vital Activity, by Ye. K. Lebedeva, 6 pp.  
RUSSIAN, bk, Problemy sozdaniya zamknytykh  
ekologicheskikh sistem, 1967, pp 102-108.  
JPRS 45837

Regeneration of Air by Higher Plants, by  
N. T. Milovskaya, 6 pp.  
RUSSIAN, bk, Problemy sozdaniya zamknytykh  
ekologicheskikh sistem, 1967, pp 108-114.  
JPRS 45837

Investigating Carbon Dioxide Excretion in Man,  
by V. I. Savkin, 5 pp.  
RUSSIAN, bk, Problemy sozdaniya zamknytykh  
ekologicheskikh sistem, 1967, pp 114-118.  
JPRS 45837

A Study of Water Regeneration by Higher Plants  
when Grown in a Closed Volume, by  
M. M. Bokovaya, 5 pp.  
RUSSIAN, bk, Problemy sozdaniya zamknytykh  
ekologicheskikh sistem, 1967, pp 119-123.  
JPRS 45837

Regeneration of Water by Lyophilizing the  
Products of Vital Activity by Man and Plants,  
by Yu. S. Koloskova, 6 pp.  
RUSSIAN, bk, Problemy sozdaniya zamknytykh  
ekologicheskikh sistem, 1967, pp 128-133.  
JPRS 45837

Creating a Heat-Treating Unit for Wastes in  
a Life-Support System Based on Material  
Cycling, by B. A. Balin, 6 pp.  
RUSSIAN, bk, Problemy sozdaniya zamknytykh  
ekologicheskikh sistem, 1967, pp 144-150.  
JPRS 45837

Mineralization of Products of Human and Plant  
Vital Activity by the Wet Combustion Method,  
by Yu. A. Drigo, 6 pp.  
RUSSIAN, bk, Problemy sozdaniya zamknytykh  
ekologicheskikh sistem, 1967, pp 150-156.  
JPRS 45837

Physicochemical Methods of Obtaining Ammonia  
Liquor and Nitric Acid from Human Vital-Activ-  
ity Wastes, by M. I. Belyakova, 5 pp.  
RUSSIAN, bk, Problemy sozdaniya zamknytykh  
ekologicheskikh sistem, 1967, pp 157-162.  
JPRS 45837

Moisture-Containing Human Wastes As a Product  
from Which to Derive Basic Nutrient Elements  
for Autotrophs, by G. I. Kozyrevskaya, 5 pp.  
RUSSIAN, bk, Problemy sozdaniya zamknytykh  
ekologicheskikh sistem, 1967, pp 166-170.  
JPRS 45837

Results of Biological Mineralization of Human  
Vital-Activity Products by Aeration with Active  
Sludge, by V. F. Varlamov, 5 pp.  
RUSSIAN, bk, Problemy sozdaniya zamknytykh  
ekologicheskikh sistem, 1967, pp 171-175.  
JPRS 45837

Titrimetric Determination of Sulfur and Phos-  
phorus in the Biological Media of Life Support  
Systems, by Ye. I. Pokrovskaya, 5 pp.  
RUSSIAN, bk, Problemy sozdaniya zamknytykh  
ekologicheskikh sistem, 1967, pp 179-183.  
JPRS 45837

Scientific  
Biological & Medical Sciences (Contd)

Flame-Spectrophotometry in Protracted Monitoring of Alkaline-Metal Ion Concentration in Nutrient Solutions when Cultivating Higher Plants, by V. I. Rozhdestvenskiy, 5 pp.  
RUSSIAN, bk, Problemy sozdaniya zamknutykh ekologicheskikh sistem, 1967, pp 183-187.  
JPRS 45837

Electron-Microscope and Chemical Study of Ash Residues in Products of Vital Activity in Man and Plants, by A. V. Bromberg, 5 pp.  
RUSSIAN, bk, Problemy sozdaniya zamknutykh ekologicheskikh sistem, 1967, pp 188-192  
JPRS 45837

Problems of Nitrogen Fixation under Mild Conditions, by M. Ye. Vol'pin, 5 pp.  
RUSSIAN, bk, Problemy sozdaniya zamknutykh ekologicheskikh sistem, 1967, pp 193-197.  
JPRS 45837

A Physicochemical Method of Synthesizing Carbohydrates from Human Vital-Activity Products in Restricted Closed Spaces, by Yu. Ye. Sinyak, 5 pp.  
RUSSIAN, bk, Problemy sozdaniya zamknutykh ekologicheskikh sistem, 1967, pp 197-202.  
JPRS 45837

Biophysical Aspects of the Effect of Ionizing Radiation on Coenoses, by R. M. Aleksakhin, 5 pp.  
RUSSIAN, bk, Problemy sozdaniya zamknutykh ekologicheskikh sistem, 1967, pp 203-208.  
JPRS 45837

Probability of Mutant Cell Preservation in Continuous Culture of Microorganisms, by V. A. Darg, 9 pp.  
RUSSIAN, bk, Problemy sozdaniya zamknutykh ekologicheskikh sistem, 1967, pp 208-216.  
JPRS 45837

On the Negentropic Tendency in Evolution of Natural and Anthropogenic Biocoenoses, by S. A. Baranov, 6 pp.  
RUSSIAN, bk, Problemy sozdaniya zamknutykh ekologicheskikh sistem, 1967, pp 217-221.  
JPRS 45837

Scientific  
Biological & Medical Sciences (Contd)

Model of Nitrogen Cycle in an Aquatic Ecosystem without Bottom Deposits, by Yu. M. Lebedev, 5 pp.  
RUSSIAN, bk, Problemy sozdaniya zamknutykh ekologicheskikh sistem, 1967, pp 225-229.  
JPRS 45837

A Mathematical Model of Population Development, by Yu. V. Chaykovskiy, 9 pp.  
RUSSIAN, bk, Problemy sozdaniya zamknutykh ekologicheskikh sistem, 1967, pp 229-236.  
JPRS 45837

Resistance Mechanisms of the Siberian Larch to Insect Pests, by A. S. Isayev, 8 pp.  
RUSSIAN, bk, Problemy sozdaniya zamknutykh ekologicheskikh sistem, 1967, pp 244-252.  
JPRS 45837

Manufacture of Synthetic Fatty Acids by B. S. Alayev.  
RUSSIAN, bk, Proizvodstvo Sinteticheskikh Zhirnykh Kislot, 1960, 123 pp.  
\*FTD-HT-23-834-68C

Microbiological Processes in the Formation of Sulfur Deposits, by M. V. Ivanov, 298 pp.  
RUSSIAN, bk, Rol' Mikrobiologicheskikh Protessov v Genezise Mestorozhdenii Samorodnoi Sery, 1964.  
CFSTI TT 67-51274

Dependence of Fish Catch on Fishing Intensity, by V. A. Fodorov, 6 pp.  
RUSSIAN, per, Rybnoe Khozaystvo, No 8, 1967, pp 52-54.  
JPRS 46,342

Dietetic Canned Kelp, by G. S. Korobkina, E. S. Baulina.  
RUSSIAN, per, Rybnoe Khoz. Vol 44, No 7, 1968, pp 53-54.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

Dry-Curing Fish in Artificial Conditions, by I. A. Shishkanova.  
RUSSIAN, per, Rybnoe Khoz. Vol 44, No 7, 1968, pp 60-61.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

Scientific  
Biological & Medical Sciences (Contd)

Problems Entailed in Providing All-Round Dispensary Care, by M. V. Katsman, 5 pp.  
RUSSIAN, per, Sovetskoye Zdravookhraneniye, No 5, 1968, pp 9-11.  
JPRS 46023

Staffing Rural Rayon Therapeutic-Prophylactic Institutions, V. V. Golovtseyev, A. L. Margulis, 6 pp.  
RUSSIAN, per, Sovetskoye Zdravookhraneniye, No 5, 1968, pp 12-15.  
JPRS 46023

Soviet Public Health, 52 pp.  
RUSSIAN, per, Sovetskoye Zdravookhraneniye, No 6, 1968, pp 3-95.  
JPRS 46381

Experience with Studies on Certain Tissue Reactions in Parodontium and Pulp Dental Auto-grafts on Dogs, by V. S. Lychak  
RUSSIAN, per, Stomatologiya, Vol 3, 1968, pp 38-41.  
\*Dept of Navy/NMS 1296

Personal Protection for the Respiratory Organs, by I. N. Nikiforov, S. L. Kaminsky, 10 pp.  
RUSSIAN, per, Sudostroyeniye, No 5, May 1968, pp 47-51.  
JPRS 46202

The Brain and What It Thinks of Itself, by A. Mitekevich, 9 pp.  
RUSSIAN, per, Tekhnika-Molodeshi, No 5, 1968, pp 7-9.  
JPRS 45047

Fifty Years' Progress and Future Tasks of Soviet Pneumology, by N. S. Kolchanov, 12 pp.  
RUSSIAN, per, Terapevticheskiy Arkhiv, June 1968, pp 12-20.  
JPRS 46368

Bioluminescence as a Hydrooptical and Biological Factor in the Sea, by I. I. Gitel'son, O. G. Baklanov, 12 pp.  
RUSSIAN, per, Trudy Moskovskogo Obshchestva Ispytateley Prirody, Bioluminetsiya, Moscow, Vol 21, 1965, pp 147-155.  
JPRS 46508

Scientific  
Biological & Medical Sciences (Contd)

Contribution to the Characteristics of Tumors of Connective Tissue and Muscular Origin, Caused by Intramuscular Injection of 20 Methyl Cholanthrene. I. Cytological Characteristics of Tumors in Mice and Rats, by V. M. Bresler  
RUSSIAN, per, Tsitologiya, Vol 4, No 3, 1962, pp 264-275.  
HEW NIH  
6-1-68

Radioautographic Study of the Life Cycle of Cells in Solid Tumors. Phase G-0 in Cells of Hepatoma and Tumors of the Mammary Gland, by O. S. Frankfurt  
RUSSIAN, per, Tsitologiya, Vol 7, No 3, 1965, pp 386-393.  
HEW NIH  
6-20-68

Vestnik of the USSR Academy of Medical Sciences, 141 pp.  
RUSSIAN, per, Vestnik Akademii Meditsinskikh Nauk SSSR, Vol 23, No 5, May 1968, pp 1-95.  
JPRS 46174

Vestnik of the USSR Academy of Medical Sciences, 154 pp.  
RUSSIAN, per, Vestnik Akademii Meditsinskikh Nauk SSSR, Vol 23, No 6, June 1968, pp 1-96.  
JPRS 46222

Vestnik of the USSR Academy of Medical Sciences  
RUSSIAN, per, Vestnik Akademii Meditsinskikh Nauk SSSR, Vol 23, No 7, July 1968, pp 1-95.  
JPRS 46,411

Hemangioendothelioma of the Lung, by V. P. Elozo  
RUSSIAN, per, Vestn. Khir., Grekov, Vol 9, Sept 1963, p 103.  
\*Dept of Navy/NMS 1276

New Genetic Lines of the Yeast *Saccharomyces Cerevisiae*, by S. G. Inge-Vechtomov, 15 pp.  
RUSSIAN, per, Vestnik Leningrad Univ. Seriya Biol., No 21, 1963, pp 117-125.  
AEC-ORNL-Tr-1962 P911255368-V

Modern Neuropsychology Looks at Reflection, by A. R. Luriya, 15 pp.  
RUSSIAN, per, Vestnik Moskovskogo Universiteta, Seriya 8, Filologiya, May-June 1968, pp 25-37.  
JPRS 46,304

Scientific  
Biological & Medical Sciences (Contd)

Changes in the Excitability of a Motor Reflex During Summation of the Effect of Small Doses of X-Ray, by Yu. K. Kudritskiy, 7 pp.  
RUSSIAN, per, Vestnik Rentgenologii i Radiologii, No 6, 1955, pp 15-21.  
P100217268-V  
FTD-HT-23-1105-67

Scientific Research on the Disease of Swine at the All-Union Institute for Experimental Veterinary Science, by P. I. Pritulin.  
RUSSIAN, per, Veterinariya, No 1, 1968, pp 13-15.  
ACSI J-5117  
FSTC HT-23-242-68

Attention - Weightlessness, by A. V. Yegorov, G. I. Pavlov, 80 pp.  
RUSSIAN, bk, Vnimaniye - Nevesomost', 1965, pp 1-94.  
P100221068-V  
FTD-HT-66-157

Reproduction and Development of Silver Hake, by V. I. Sauskan, V. P. Serebryakov, 31 pp.  
RUSSIAN, per, Voprosy Ikhtologii, Vol 8, No 3 (50) 1963, pp 500-521.  
JPRS 46,342

Isolation of the Vesicular Stomatitis Virus from a Sick Person, by S. Ia. Gaidamovich  
RUSSIAN, per, Vop Virus, Vol 11, 1966, pp 77-80.  
HEW NIH  
6-2-68

A Laboratory Apparatus Complex for Suspension Cultivation of Cells, by L. N. Mishin.  
RUSSIAN, per, Voprosy Virusologii, No 1, 1968, pp 113-120.  
ACSI J-5030  
FSTC HT-23-71-68

Chromosome Injuries in Some Virus Infections, by I. F. Barinskiy, I. V. Dement'yev, 20 pp.  
RUSSIAN, per, Voprosy Virusologii, No 2, 1968, pp 131-141.  
JPRS 46,351

Comparison of the Cytopathic Activity of the Respiratory Syncytial (RS) Virus in Different Tissue Cultures, by A. S. Larionov, A. I. Solov'yeva, 6 pp.  
RUSSIAN, per, Voprosy Virusologii, No 2, 1968, pp 164-166.  
JPRS 46,351

Scientific  
Biological & Medical Sciences (Contd)

Immunomorphological and Serological Indices in Immunization Against Ornithosis with Liquid Vaccine Aerosols, by I. I. Terskikh, J. S. Gusman, 11 pp.  
RUSSIAN, per, Voprosy Virusologii, No 2, 1968, pp 192-199.  
JPRS 46,351

Treatment of Irradiated Animals Indicated, by V. Il'yin, 6 pp.  
RUSSIAN, per, Voyennyye Znaniya, No 7, 1968, pp 24-25.  
JPRS 46378

The Physico-Chemical Aspects of Isomorphism, by V. A. Karkinskiy, A. A. Yaroshevskiy.  
RUSSIAN, bk, Zapiski Vsesoyuznogo Mineralogicheskogo Obshchestva, Second Series, Part 96, No 5, 1967, pp 532-546.  
ACSI J-5051  
FSTC-HT-23-192-68

State of Psychoneurological Care in the RSFSR, by A. V. Sergeyev, 7 pp.  
RUSSIAN, per, Zdruvookhraneniye Rossiyskoy Federatsii, Vol 12, No 6, June 1968, pp 3-8.  
JPRS 46257

Antiepidemic and Prophylactic Measures in the USSR During the Past Fifty Years, by I. I. Rogozin, Z. I. Dubnitskaya, 7 pp.  
RUSSIAN, per, Zhurnal Mikrobiologii, Immunologii i Epidemiologii, No 1, 1967, pp 6-11.  
JPRS 46366

Bulgaria Conducts Study of Reasons for Morbidity, by Z. Bogdanov, 14 pp.  
BULGARIAN, per, Khigiena i Zdraveopasvane, No 2, Mar/Apr 1968, pp 121-129.  
JPRS 46038

In Defense of Our Fish Resources, by G. Vlashev.  
BULGARIAN, per, Priroda, No 5, 1967, pp 85-91.  
ACSI J-4964  
FSTC HT-23-107-68

Pathological Anatomy in Medical Jurisprudence, by Ch'en In'Kao, Hsu Ying-han  
CHINESE, bk, Fayl Singli Jiepan, Chap 1, pp 1-3; Chap 3, Part 1, p 14; Chap 11, 12, 13, pp 135-172, 1956.  
ACSI J-5511  
ID 2204017668

Scientific  
Biological & Medical Sciences (Contd)

Childbirth Risk of a Multipara, by V. Lane  
CZECH, per, Cas Lek Cesk, Vol 88, 1949,  
pp 1455-1459.  
HEW NIH  
6-16-68

Effect of Intraperitoneal Administration of  
Neomycin and Neolymphin on Respiration, by  
P Markalous  
CZECH, per, Cas Lek Cesk, Vol 101, No 7,  
1962, pp 198-204.  
HEW NIH  
6-24-68

The Factors Influencing the Reaction  
of the Adrenal Cortex to Cold, by  
V. Jonec, 18 pp.  
CZECH, per, Lekarske Listy, Vol 6,  
No 1, pp 377-387.  
F100228168-V  
FTD-HT-23-562-67

Medical Protection Against Atomic Weapons,  
by Miroslav Arient, Milos Pavlicek.  
CZECH, bk, Repetitorium Vojenskeho Lekare,  
1965, pp 216-274.  
ACSI J-5155  
FSTC-HT-23-219-68

The Effect of Radiation Sickness  
on the Biochemical Post-Mortem  
Changes in Tissues, by J. Vranovska,  
V. Kalousova, 10 pp.  
CZECH, per, Vojenske Zdravotnicko  
Listy, Vol 35, No 2, 1966, pp 62-65.  
F100229668-V  
FTD-HT-67-429

Cat Scratch Fever, 5 pp.  
DUTCH, per, Bilg. T. Genesh, Vol 21, 15 Oct  
1965, pp 975-978.  
Dept of Navy/NMS 1263

Fight Against Sleeping Sickness with Preventive  
Prophylaxis in the Maniema District during the  
Years 1938-1950, by H. Classens  
DUTCH, per, Boc. Blehs Med. Trop, Vol 32,  
1952, pp 121-140.  
\*Dept of Navy/NMS 1297

Scientific  
Biological & Medical Sciences (Contd)

Operational Aspects of Deep Diving, by  
X. R. Fructus, 20 pp.  
FRENCH, monograph, May 1967  
Dept of Navy/NMS 1270

Studies on the Rhythm of Urinary Elimination  
of Chlorpromazine in Man. Biological and  
Statistical Considerations, by C. Chatagnon  
FRENCH, per, Ann Biol Clin, Vol 20, 1962,  
pp 75-84.  
HEW NIH  
6-4-68

Inapparent Viral Infection of Hamster Cells  
Detected by Electron Microscopy,  
by W. Bernhard  
FRENCH, per, Ann Inst Pasteur, Vol 107, No 4,  
1964, pp 447-452.  
HEW NIH  
6-18-68

Some New Indications for Fluorescein Angio-  
graphy, by P. Amalric  
FRENCH, per, Ann Oculist, Vol 200, No 2, 1967,  
pp 129-162.  
HEW NIH  
6-15-68

On the Experimental Intersexuality of Embryonic  
Gonads of the Mallard Duck, Grown in Vitro,  
by E. Wolff  
FRENCH, per, Arch Anat Micr Morph Exp, Vol 41,  
No 2, 1952, pp 184-207.  
HEW NIH  
6-5-68

Value of Psychosomatic Studies in Some Cases  
of Severe Total Alopecia, by M. Degossely,  
13 pp.  
FRENCH, per, Arch. Belg. Derm Syph, Vol 21,  
1965, pp 257-266.  
Dept of Navy/NMS 1284

Perfusion of Isolated Dog Kidneys with  
Heparinated Blood, by A. Niset, 2 pp.  
FRENCH, per, Archives Internat. Physiol.  
et Biochem, Vol 70, 1967, pp 439-441.  
\*Dept of Navy/NMS 1261

**Scientific  
Biological & Medical Sciences (Contd)**

Comparative Findings with the Hoyt-Morrison Test and With Other Tests for Changes in Serum: Value of the Test in Viral Hepatitis, by R. Marano  
FRENCH, per, Arch Pat Clin Med, Vol 40, 1964, pp 384-393.  
NIH-HEW  
7-14-68

Production of Tumors by Means of Carcinogenic Chemical Substances in the Hamster. II. Study of Methylcholanthrene, Benzpyrene, and Dimethylbenzanthracene Injected in Various Doses, by M. R. Riviere  
FRENCH, per, Bull Cancer, Vol 50, No 2, 1963, pp 275-289.  
HEW NIH  
6-7-68

Regulation of Posture with Statokinesimeter, by A. Soulaire, 9 pp.  
FRENCH, per, Cahiers du College de Med., Vol 7, No 10, 1960, pp 669-672.  
Dept of Navy/NMS 1275

Isotopic Effect of Tritium in the Form of Tritiated Thymidine on ATP Activity; Purified Thymidine-5'-Phosphotransferase, by L. Baugnet-Mahieu  
FRENCH, per, Chim Biol, Vol 47, No 12, 1965, pp 2321-2322.  
NIH-HEW  
7-5-68

Experimental Investigations on the Antineoplastic Action of Fleming's Lysozyme. Lysozyme Action on Sarcoma 180, by S. Curro  
FRENCH, per, Chir Pat Sper, Vol 12, No 11, 1964, pp 1022-1032.  
HEW NIH  
6-21-68

Mycoplasma Arthritis Polyarthritidis of the Rat. I. Experimental Reproduction, by F. Delbarre  
FRENCH, per, C R Soc Biol, Vol 158, 1964, pp 1006-1008.  
NIH-HEW  
7-8-68

**Scientific  
Biological & Medical Sciences (Contd)**

Mycoplasma Arthritis Polyarthritidis of the Rat. II. Role of Different Factors, by F. Delbarre  
FRENCH, per, C R Soc Biol, Vol 158, 1964, pp 1043-1046.  
NIH-HEW  
7-16-68

Experimental Mycoplasma Arthritis Polyarthritidis of the Rat. IV. Immunologic Phenomena (Animals Subjected to Active Immunization), by A. Kahan  
FRENCH, per, C R Soc Biol, Vol 158, 1964, pp 1320-1322.  
NIH-HEW  
7-11-68

Catecholamine Content of the Adrenals of Male Long Evans Rats in the Course of Adaptation to Different Temperatures, by L. Chevillard  
FRENCH, per, C R Soc Biol, Vol 161, No 2, 1967, pp 279-283.  
HEW NIH  
6-17-68

Anti-Lymphocytic Serum, Bone Marrow and Immunological Tolerance in Young Dogs, by H. Otte, 6 pp.  
FRENCH, per, Comptes rendus Soc. de Biol, Vol 161, No 4, 29 Apr 1967, pp 959-962.  
Dept of Navy/NMS 1254

Discussion on Bone Pseudo-Tumors in the Hemophiliacs, by Docteur Queneau,  
FRENCH, per, Hemostase, Vol 99, 1965, p 101.  
\*Dept of Navy/NMS 1288

Studies on Formation of Urea in Animal Body by H. Krebs  
FRENCH, per, Hoppe Seyler Z Physiol Chem, Vol 210, 1932, pp 33-66.  
HEW NIH  
6-11-68

Analytical and Biological Studies on the N-Acetyl-L-Aspartate Content of the Brain, by F. Bruns  
FRENCH, per, Hoppe Seyler Z Physiol Chem, Vol 348, 1967, pp 512-518.  
HEW NIH  
6-9-68

Scientific  
Biological & Medical Sciences (Contd)

Metabolic Processes in the Brain at Normal and Reduced Temperatures and Under Anoxic and Ischemic Conditions, by W. Thorn  
FRENCH, per, J Neurochem, Vol 2, 1958, pp 150-165.  
HEW NIH  
6-6-68

Experimental Attempts at Valvular Vein Grafts with Suspended Anastomoses According to the Kunlin's Technique, by R. Devin, 9 pp.  
FRENCH, per, Marseille Chir, Vol 16, No 3, May-June 1964, pp 179-186.  
Dept of Navy/NMS 1266

On the Leukocytogenic Action of Fleming's Lysozyme in Subjects Treated with Chemio-antiblastics, by E. Foti.  
FRENCH, per, Minerva Chir, Vol 21, 1966, pp 693-695.  
NIH-HEW  
7-3-68

Rare Diseases of Os Calcis, by G. Giambelli, 3 pp.  
FRENCH, per, Presse Med., Vol 72, No 25, 1964, pp 3001-3004.  
Dept of Navy/NMS 1287

Methenolone in the Treatment of Bone-Marrow Insufficiencies, by R. Zittoun.  
FRENCH, per, Presse Med, Vol 76, No 10, 1968, pp 445-448.  
NIH-HEW  
7-4-68

Action of Procarbazine in the Malignant Lymphomas, by M. Fiorentino.  
FRENCH, per, Presse Med, Vol 76, No 21, 1968, p 992.  
NIH-HEW  
7-7-68

A Routine Technique for in Vitro Culture of Nerve Cells, by Gille Lamoureux, 5 pp.  
FRENCH, per, Rev. Can. Biol, Vol 23, No 3, 1964, pp 261-264.  
Dept of Navy/NMS 1285

Scientific  
Biological & Medical Sciences (Contd)

Frequency and Significance of Positive Waaler-Rose Reactions and Latex Tests in Liver Diseases, by J. Badin  
FRENCH, per, Rev Int Hepat, Vol 13, No 8, 1963, pp 655-667.  
NIH-HEW  
7-19-68

False Incompatibilities in Interactions with Bromelin Due to Cold Agglutinins, by G. Russo  
FRENCH, per, Riv Enoter Immunoemat, Vol 10, 1963, pp 251-258.  
NIH-HEW  
7-10-68

Effects of Pharmacodynamic Substances of Clinical Interest on the Electroencephalogram, by G. Verdeaux  
FRENCH, per, Rev Neurol, Vol 91, No 6, 1954, pp 405-427.  
HEW NIH  
6-14-68

Intradermal Vaccination Against Typhoid Fever Studied, by Nguyen Trung Thanh, 9 pp.  
FRENCH, per, La Sante Publique, Apr 1967, pp 365-371.  
JPRS 45717

Isoamylases in the Organs and Body Fluids of Rats and Rat Fetuses. Changes after Total Body Irradiation, by T. Goetze  
GERMAN, per, Acta Biol Med German, Vol 19, 1967, pp 519-528,  
HEW NIH  
6-10-68

Thymine-2-Deoxypentopyranosides As Inhibitors of Uridine-Deoxyuridine Phosphorylase. Configuration-Effect Relations, by G. Etzold.  
GERMAN, per, Acta Biol Med German, Vol 20, No 4, 1968, pp 437-442.  
NIH-HEW  
7-6-68

Experimental Studies with N-(2'-Chloro-4'-Nitrophenyl)-5-Chlorosalicylamide, a New Agent against *Taenias*. 1st Report: Chemotherapeutic Experiments, by R. Goennert  
GERMAN, per, Arzneimittelforschung, Vol 10, No 11, 1960, pp 881-884.  
HEW NIH  
6-3-68

Scientific  
Biological & Medical Sciences (Contd)

Experimental Studies with N-(2'-Chloro-4'-Nitrophenyl)-5-Chlorosalicylamide, a New Tenuicide. Report 2. Toxicological Studies, by G. Hecht  
GERMAN, per, Arzneimittelforschung, Vol 10, No 11, 1960, pp 884-885.  
HEW NIH  
6-8-68

On the Genetics of Growth Forms, by Klaus Lapp-Zinn, 17 pp.  
GERMAN, per, Beitraege Zur Biologie der Pflanzen, vol 38, Feb 1963, pp 161-177. 500190368-V  
Dept of Navy ONI tr 2381

The Telephone Transmission of the EEG, by H. Niebeling  
GERMAN, per, Beitr Neurochir, Vol 13, 1966, pp 122-126.  
HEW NIH  
6-19-68

The Importance of Mycoplasma in Figs. II. Attempts at Transmission of a Swedish Mycoplasma Strain (Sep Agent) to Experimental Piglets, by M. Scheer  
GERMAN, per, Berlin Munchen Tieraerztl Wschr, Vol 80, No 21, 1967, pp 408-410.  
NIH-HEW  
7-9-68

Effect of Pre-Operative Treatments on Anesthesia and Surgery, by H. G. Vourc'h.  
GERMAN, per, Cah Anesth, Vol 12, 1964, pp 5-68.  
NIH-HEW  
7-1-68

Cleft Palate and Its Surgical Treatment, by R. Drachter, 52 pp.  
GERMAN, per, Deutsch Zeitschr. f. Chir, Vol 131, 1914, pp 39-89.  
Dept of Navy/NMS 1283

The Automatic Recording and Analysis of the Movement Activity of Small Experimental Animals, by F. J. Otto, K. H. Rohe.  
GERMAN, bk, Examples of Applied Research Year-book of the Fraunhofer Society, 1966-1967, pp 78-83.  
ACSI J-4409  
ID 220400716E

Scientific  
Biological & Medical Sciences (Contd)

Some New Views on the Basic Concept of Respiratory Mechanism, by K. von Neergaard, 38 pp.  
GERMAN, per, Exptl. Med., Vol 66, 1929, pp 373-394.  
Dept of Navy/NMS 1264

The Presence of Rutile in Lung Dust, by A. Glauser.  
GERMAN, per, Ges Zuerich, Vol 95, 1950, pp 2-3, 98-101.  
NIH-HEW  
7-2-68

The Influence of Bacterial Infection and Its Treatment in Acute Leukemia, by A. Stacher  
GERMAN, per, Med Klin, Vol 61, No 40, 1966, pp 1576-1579.  
HEW NIH  
6-13-68

Overloading Damage on the Remaining Kneejoint in Femoral Amputees, by Christian Holland, 16 pp.  
GERMAN, per, Monatschr. Unfallheilk, Vol 69, Jul 1966, pp 344-354.  
Dept of Navy/NMS 1291

Preservation of Bread by Means of Gamma Radiation, by G. Stehlik, K. Kaindl, 23 pp.  
GERMAN, rpt, Osterr. Stud. fur Atomenergie Ges.m.b.H Inst. Biologie und Land. Forsch. Seibersdorf, 1967. P911254468-V  
AEC-ORNL-TTC-15

Relationship of Senile Cerebral Atrophy to Aphasia, by Arnold Pick  
GERMAN, per, Prager Med. Wochenschr, Vol 17, No 16, Apr 20, 1892, pp 165-167.  
\*Dept of Navy/NMS 1294

Concerning the Fly Agaric, by G. H. Eugster  
GERMAN, per, Vischr Naturf Ges Zurich, Vol 11, Suppl 169, 1967, pp 1-39.  
HEW NIH  
6-12-68

The Second Principle in Biology, by R. Haase.  
GERMAN, per, Zeitschrift Fuer Elektrochemie, Vol 55, No 6, 1951.  
ACSI J-4463  
ID 2204009268



Scientific  
Biological & Medical Sciences (Contd)

Presenile Dementia (Pathological Cases Peculiar to Later Years) by A. Alzheimer, 48 pp.  
GERMAN, per, Zeitschr. f. Gesamte Neurol. u. Psych., Vol 4, 1911, pp 356-385.  
Dept of Navy/NMS 1286

Studies on the Specificity of Hemagglutination in Infectious Hepatitis, by S. Nagylucskay  
GERMAN, per, Z. Immun Allergieforsch., Vol 129, 1965, pp 84-96.  
NIH-HEW  
7-20-68

Classification of Ferret Badger, by Wolf Everts  
GERMAN, per, Zeitschr f Saeugertierkunde. Vol 33, 1968, pp 1-19.  
\*Dept of Navy/NMS 1295

Colliquative Amoebic Hepatitis with Secondary Lung Abscess, by A. Gambardella, 15 pp.  
ITALIAN, per, Acta Med. Italica di Med. Trop. e Subtrop. e di Gastroent., Vol 18, 1963, pp 267-272.  
Dept of Navy/NMS 1268

A Clinical Case of Primary Cavemoma of the Maxilla, by E. Gianni.  
ITALIAN, per, Archivio Stomatologico, Vol 6, Apr-Jun 1965, pp 59-69.  
ACSI J-5195  
ID 2204015168

The Problem of Spontaneous Generation in the Past and Present, by P. Gelmetti  
ITALIAN, per, Med Secoli, Vol 4, No 1, 1967, pp 60-78.  
HEW NIH  
6-23-68

The Lipolytic Activity of Sabouraud's Microbacillus by R. Leone.  
ITALIAN, bk, Sull'attivita Lipolitica del Microbacillo di Sabouraud, pp 1027-1036.  
ACSI J-5194  
ID 2204015068

Experimental Rhabdomyosarcomas in the Rat and Guinea Pig, by C. Maltoni  
ITALIAN, per, Tumori, Vol 49, No 5, 1963, pp 315-329.  
NIH-HEW  
7-21-68

Scientific  
Biological & Medical Sciences (Contd)

Leukocytotoxic Antibodies in Patients with Various Types of Leukemia, by E. Fagiolo  
ITALIAN, per, Tumori, Vol 53, 1967, pp 581-590.  
HEW NIH  
6-22-68

Diagnosis of Smallpox and Cowpox by the Fluorescent Antibody Technique, by S. Kato.  
JAPANESE, per, All-Round Clinic, Vol 13, No 7, pp 1239-1247.  
ACSI J-5156  
FSTC HT-23-262-68

On Morphine Addiction, by S. Kin  
JAPANESE, per, Keijo J Med, Vol 4, 1933, pp 89-92.  
NIH-HEW  
7-13-68

Effects of Polyethylene Materials on the Endometrium (Polyethylene Ring. Report No 6, Tissue Biopsy), by M. Sakurabayashi  
JAPANESE, per, Nippon Sanka Fujinka Gakkai Z. Vol 18, 1966, pp 1351-1355.  
NIH-HEW  
7-12-68

Mucocutaneous Ocular Syndromes As Seen in the Blood Serum Protein Fraction. Electrophoretic Studies on Mucocutaneous Ocular Syndromes, by K. Kobayashi  
JAPANESE, per, Rinsho Ganka, Vol 10, No 4, 1956, pp 738-742.  
NIH-HEW  
7-18-68

Further Studies of the Histopathology of the Eyeballs in Behcet's Disease, by H. Ikui  
JAPANESE, per, Rinsho Ganka, Vol 14, No 2, 1960, pp 529-542.  
NIH-HEW  
7-17-68

Medical Treatment and Health Maintenance Costs in the Soviet Union.  
JAPANESE, per, Today's USSR, No 18, 1967, p 39.  
ACSI J-5041  
FSTC HT-23-211-68

Scientific  
Biological & Medical Sciences (Contd)

The Effect of Low Cholesterol Diet on Persons Who Have Had Heart Infarct, by Paul Leren, 8 pp.  
NORWEGIAN, per, Nord. Med., Vol 77, 25 May 1967, pp 658-661.  
Dept of Navy/NMS 1265

Small and Large Plaques Forming Variants of EEE Virus (Eastern Equine Encephalomyelitis), by Zofia Wroblewska-Mularczykowa.  
POLISH, per, Medycyna Doswiadczalna i Mikrobiologia, Vol 19, No 4, 1967, pp 363-366.  
ACSI J-4620  
FSTC-HT-23-94-68

Local Application of Placenta in the Therapy of Intestinal Fistulae, by Marian Pinski, 13 pp.  
POLISH, per, Polski Przegląd Chir., Vol 27, No 8, 1955, pp 781-785  
Dept of Navy/NMS 1274

Rural Households Diet Analyzed, 15 pp.  
SERBO-CROATIAN, per, Ekonomika Poljoprivrede, Belgrade, July-August 1968, pp 765-775.  
JPRS 46514

Nutrition of Various Working Groups Studies, by B. Milic-Krivodoljanin, 14 pp.  
SERBO-CROATIAN, per, Hrana i Ishrana, Feb-Mar 1968, pp 213-223.  
JPRS 46497

Clinical and Experimental Studies on Venous Grafts (As Substitutes), by Juro Wada, 6 pp.  
SPANISH, per, Acad. Peru Cir., Vol 16, Mar 1964, pp 425-428.  
Dept of Navy/NMS 1267

Hemagglutination with Erythrocytes of Macacus Rhesus in Typhoid Fever (Hoyt and Morrison Test), by V. De Feo  
SPANISH, per, Boll Ist Sieroter Milanese, Vol 42, 1963, pp 335-339.  
NIH-NEW  
7-15-68

Scientific  
Biological & Medical Sciences (Contd)

General Information Concerning Viruses.  
VIETNAMESE, per, VI Trung Viet Cong Medical Manual: BACTERIOLOGY Incl to 2 222 0819 67, pp 78-90.  
ACSI J-4917  
FSTC HT-23-178-68

Health Minister Urges Use of Vietnamese Medicine, by Pham Ngoc Thach, 5 pp.  
VIETNAMESE, np, Suc-khoe, July 1968, pp 1, 3.  
JPRS 46389

Health Vn. Summarizes Medical Conference, by Nguyen Duc Thang, 6 pp.  
VIETNAMESE, np, Suc-khoe, July 1968, pp 1, 3.  
JPRS 46389

Chemistry

Selection of an Antioxidant Component for Detergent Additive SB-3, by A. M. Kuliyeu  
RUSSIAN, coll; AN AzerbSSR. Institut. Khimii Prasadok. Prasadki k Smazochnym Maslam; Voprosy Sintesa, Issledovaniya i Primeniya Prasadok k Maslam, Topliva i Polimernym Materialam, 1967, pp 158-160.  
\*FTD-HT-23-848-68C

The Use of Quaternary Ammonium Compounds to Stabilize Solutions of Viscous Lubricating Oil Additives, by A. M. Kuliyeu.  
RUSSIAN, Coll, AN AzerbSSR. Institut Khimii Prasadok. Prasadki k Smazochnym Maslam; Voprosy Sintesa, Issledovaniya i Primeniya Prasadok k Maslam. Topliva i Polimernym Materialam, 1967, pp 167-169.  
\*FTD-HT-23-850-68

Determining the Detergent Properties of Lubricating Oils by the PZV Method, by Sh. A. Mkhitarian.  
RUSSIAN, coll, AN Azerb SSR. Institut Khimii Prasadok. Prasadki k Smazochn m Maslam; Voprosy Sintesa, Issledovaniya i Primeneniya Prasadok k Maslam, Topliva i Polimernym Materialam, 1967, pp 271-275.  
\*FTD-HT-23-848-68C

Scientific  
Chemistry (Contd)

Burning of Heterogeneous Condensed Systems, by N. N. Bakhman, A. F. Belyayev, 214 pp  
RUSSIAN, bk, An SSSR. Institut Khimicheskoy Fiziki, 1967, pp 3-226  
FI00164268-V  
FTD-MT-24-315-67

Phase Diagram of the ZrC-Mo System, by S. S. Ordan'yan, A. I. Avgustinik, 11 pp.  
RUSSIAN, per, An SSSR. Issledovaniya v Oblasti Khimii Silikatov i Kislov. Sbornik Statey, 1965, pp 220-228. FI00240158-V  
FTD-HT-23-1034-67

Thermoelectronic Properties of (UC)<sub>0.2</sub>(ZrC)<sub>0.8</sub> V in Cesium Vapors, by A. G. Fedorov, P. M. Marchuk, 5 pp.  
RUSSIAN, bk, AN UKRSSR. Institut Problem Materialovedeniya. Vysokotemperaturnyye Neorganicheskiye Soyedineniya, 1965, pp 274-277  
FI00205068-V  
FTD-HT-23-898-67

Reaction of Ethylene Glycol Monoalkyl Ethers With Phosphorus Pentasulfide, by A. M. Kuliyeu, Z. A. Alizade, 5 pp  
RUSSIAN, per, Azerbaydzhanskiy Khimicheskii Zhurnal, No 6, 1965, pp 10-13  
FI00202768-V  
FTD-HT-67-76

Wetainment of Artificial Diapore (Hydrous Aluminum Oxide), by N. K. Druzhinina.  
RUSSIAN, PER, Doklady ANSSSR, Vol 88, No 1, 1953, pp 133-135. FI00242368-V  
FTD-HT-67-464

Investigations in the Field of Dibasic Carboxylic Acids, by A. L. Indzhoyan, O. A. Mednikyan, 6 pp.  
RUSSIAN, per, An ARMBSSR. Investiya. Seriya Khimicheskikh Nauk, Vol 18, No 2, 1965, pp 186-192. FI00240268-V  
FTD-HT-23-807-67

Thermal Expansion of Ionic Crystals, by G. A. Krestov.  
RUSSIAN, per, IVUZ. Khimiya i Khimicheskaya. Vol 9, No 4, 1966, pp 558-562.  
\*FTD-HT-23-821-68C

Scientific  
Chemistry (Contd)

Chemical Properties of the Element 104-Kurchatovium, by I. Zvara, Yu. T. Chuburkov, et al., 10 pp.  
RUSSIAN, rpt, JINR-D7-3548, 1967, pp 19-23.  
AEC-ANL-Tr 632 P911252568-V

Separation of Deuterium from Hydrogen by Means of Low Temp Distillation Material, by M. P. Maldov.  
RUSSIAN, per, Kislorod, No 6, 1959, pp 1-13.  
\*FTD-MT-24-324-68

Research on the Oxidation of Hydrocarbons in the USSR During the Last Fifty Years, by N. M. Emmel.  
RUSSIAN, per, Neftkhimiya, Vol 7, No 6, 1967, pp 627-641.  
ACSI J-5042  
FSTC HT-23-189-68B

Production of Oxygen, by D. L. Glizmanenko.  
RUSSIAN, monograph, Polucheniye kisloroda, 4th ed. Moscow, 1965, Chapter 12, pp 590-637.  
\*FTD-HT-23-854-68C

Ferrocene, by N. A. Kochetkova, R. B. Materikova, 5 pp.  
RUSSIAN, per, Priroda, No 11, 1961, pp 98-100  
FI00205068-V  
FTD-HT-67-347

Colloido-Chemical Properties of Curing Smoke, by E. A. Khvan, B. F. Sadovskii.  
RUSSIAN, per, Rybnoe Khoz, Vol 44, No 7, 1968, pp 43-45.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

Investigation of the Structure of Surface of Burning of Model Mixtures of Solid Fuels, by P. P. Pokhil, L. D. Romodanova, 7 pp  
RUSSIAN, per, Teplota i Massopereenos, Vol 4, 1966, pp 183-190  
FI00164768-V  
FTD-MT-24-248-67

Thermal Decomposition of Hexogen and Octogen, by Yu. Ya. Maksimov, 21 pp.  
RUSSIAN, per, Trudy Mosk. Khim-Tekh. Inst., 1967, pp 73-84. P911254968-V  
AEC-LA-Tr-68-30

Scientific  
Chemistry (Contd)

Intermediate Products of the Radiolysis of Water, by V. A. Sharpatyy, M. A. Proskurnin. RUSSIAN, per, Trudy II Vsesoyuznogo Soveshchaniya Po Radiatsionnoy Khimii, 1962, 7 pp. ACST J-4888 FSTC HT-23-54-68

Chemical Properties of Germanides of Lanthum, by M. D. Lyutaya, A. B. Goncharuk, 6 pp. RUSSIAN, per, Ukrainskiy Khimicheskiy Zhurnal, Vol 32, No 5, 1966, pp 433-436 P100201568-V FTD-HT-67-406

Hydrogen Bond and Frequency of Valence Vibrations of the N-H and NO sub 2 Groups of Nitroanilines, by A. Ye. Lytskiy. RUSSIAN, per, Ukrainskiy Khimicheskiy Zhurnal, Vol 32, No 12, 1966, pp 1317-1320. \*FTD-MT-24-340-68

Reaction of Urea and Oxalic Acid in Aqueous Solution, by I. L. Ababaremk. RUSSIAN, per, Ukrainskiy Khimicheskiy Zhurnal, No 1, 1968, pp 12-13. ACST J-5109 FSTC HT-23-238-68

Chemical Reaction Characteristics in Sublimating Hybrid Systems, by A. L. Mosse. RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1967, pp 45-51. \*FTD-HT-23-799-68

Progress in Isocyanide Chemistry, by N. P. Gamberyan. RUSSIAN, per, Zhurnal Vsesoyuznogo Khimicheskogo Obshchestva, 1967, pp 65-76. ACST J-5157 FSTC HT-23-257-68

Study of the Quaternary System  $B_2O_3$ -HF-CaO-H<sub>2</sub>O at 25°C. II. Identification and Study of Solids, by Jean-Louis Leibenguth. FRENCH, per, Bull Soc Chim de France, No 12, 1966, pp 3811-3815. AEC K-Trans-35 STS No 6688

Scientific  
Chemistry (Contd)

Galvanic Fuel Elements, Energy Sources of the Future, by V. habernickel, 31 pp. GERMAN, per, Chemie Anlagen Verfahren, No 4, 1967, pp 41-45; No 1/2, 1968, pp 45-50. P500189568-V Dept of Navy NIC tr 2646

Organotin Compounds with Bulky Aryl Groups IV<sup>1</sup>, by Bahr Gerhard, Kolf Galius, 7 pp. GERMAN, per, Chem Ber, No 91. Dept of Commerce Patent Office

Sulfur Isotope Conditions in North and South German Connate Waters and Evaporites, by German Mueller, & Heimo Nielsen, et al. 16 pp. GERMAN, per, Chem. Geol. No 1, 1966, pp 211-220. AEC-Tr-6947 P911229368-V

Contributions Concerning Separation of Rare Earths. IX. The Systems Terbium Oxide-Yttrium Oxide and Terbium Oxide-Erbium Oxide, by L. Wolf, H. Schwab, 16 pp. GERMAN, per, Journal Fur Praktische Chemie, Vol 24, No 5/6, 1964, pp 293-304. P100207268-V FTD-HT-67-205

Condensation of Mercury Vapor in a Vacuum System and Its Effect on the Accuracy of Low Pressure Measurements, by Z. Caspiro, 12 pp. GERMAN, per, Vakuum-Technik, Vol 17, No 3, 1968. Dept of Commerce Nat Bureau of Standards

Complex Formation of Aminopoly-carboxylic Acid Esters With Transition Metal Ions, by L. Beyer, G. Kuhn, 13 pp. GERMAN, per, Zeitschrift Fur Anorganische Und Allgemeine Chemie, Vol 339, No 1/2, 1965, pp 8-19. P100205468-V FTD-HT-23-449-67

Chemical Reaction Kinematics, Part VI and Part VII, by A. Ding GERMAN, per, Zeitschrift fur Naturforschung, Vol 23a, Part VI, 1968, pp 779-780; Vol 23a, Part VII, 1968, pp 780-781. \*AFCKL

Scientific  
Chemistry (Contd)

Spectrographic Determination of Impurities in Gallium Arsenide, by E. Laszkiewicz, 15 pp.  
POLISH, per, Przegląd Elektroniki, No 7, 1965, pp 328-336  
P100203868-V  
FTD-HT-67-330

Earth Sciences & Oceanography

Effect of the Height of the Snow Cover on Natural Regulation of River Runoff in Eastern Georgia, by L. V. Sidorova.  
RUSSIAN, per, pp 101-109.  
ACSI J-4887  
FSTC HT-23-158-68

Mechanization of Mining Operations Progressing, by B. Bratchenko, 6 pp.  
RUSSIAN, per, Agitator, No 14, 1968, pp 25-27.  
JPRS 46,247

Experience in Burial of Liquid Radioactive Wastes in Deep Geological Formations, by F. P. Yudin, M. K. Pimenov, 10 pp.  
RUSSIAN, per, Atomnaya Energiya, Moscow, Vol 25, No 2, August 1968, pp 128-133.  
JPRS 46535

Characteristics of Seismic Effect of Underground Explosions, by N. V. Kus'mina, D. A. Kharin, 14 pp.  
RUSSIAN, per, Fizika Goreniya i Vozdukh, No 4, 1966, pp 111-123.  
P100245468-V  
FTD-HT-24-306-67

Construction of a Trihedral Signal With Rhombic Sheathing, by P. P. Dokuchayev.  
RUSSIAN, per, Geodesiya i Kartografiya, No 1, 1965, pp 31-35.  
ACIC TC-1446

Experiment of Construction of a Signal With Rhombic Lattice, by V. T. Zagrebnyy, V. U. Zinovish.  
RUSSIAN, per, Geodesiya i Kartografiya, No 7, 1965, pp 36-37.  
ACIC TC-1447

Scientific  
Earth Sciences & Oceanography (Contd)

Analysis of Expenditure of Labor and Finance in Topographic Surveying at Scale 1:25,000 in Mountain Regions, by V. A. Kargashina, V. S. Kirillova.  
RUSSIAN, per, Geodesiya i Kartografiya, No 12, 1965, pp 39-44.  
ACIC TC-1449

Helicopters on Reconnaissance and in Erection of Signals in Sanda Regions, by V. L. Gutkin.  
RUSSIAN, per, Geodesiya i Kartografiya, No 8, 1966, pp 16-19.  
ACIC TC-1444

Astronomic-Geodetic Net of the USSR, by S. G. Sudakov.  
RUSSIAN, per, Geodesiya i Kartografiya, No 10, 1967, pp 18-31.  
ACIC TC-1475

Fundamental Leveling Net of the USSR, by I. I. Ertin.  
RUSSIAN, per, Geodesiya i Kartografiya, No 10, 1967, pp 32-37.  
ACIC TC-1474

Quantum Magnetometry, by N. M. Pomerantsev, V. M. Ryzhkov, 93 pp.  
RUSSIAN, per, Geofizicheskaya Apparatura, Leningrad, No 33, 1967, pp 13-94.  
JPRS 46444

Geometry of the Earth Ellipsoid, by V. N. Gan'shin.  
RUSSIAN, bk, Geometriya Zemnogo Ellipsoida, 1967, 115 pp.  
ACIC TC-1473

Hydrophysics of Bogs, by V. V. Romanov, 299 pp.  
RUSSIAN, bk, Gidrofizika Bolot, 1961  
CPSTI TT 67-51289

History of Hydroengineering in Russian Before the Nineteenth Century, by V. V. Danilevskii, 190 pp.  
RUSSIAN, bk, Istoriya Gidrosilovyykh Ustanovok v Rossii Do Nachala XIX Veka, 1940.  
CPSTI TT 67-51344

Scientific  
Earth Sciences & Oceanography (Contd)

Samot-Lor Oil Deposit in western Siberia,  
by I. Osipov, 5 pp.  
RUSSIAN, np, Izvestiya, 18 July 1968, p 5.  
JPRS 46270

Cartographic and Geodetic Work in Russia in  
the 19th Century and at the Beginning of the  
20th Century, by Z. K. Novokshanova-Sokolovskaya.  
RUSSIAN, bk, Kartograficheskiye i Geodezi-  
cheskiye Raboty V Rossii V XIX - Nachale XX V.,  
1967, pp 1-324.  
ACSI J-5262  
ID 2204015368

Meteorology and Hydrology, 201 pp.  
RUSSIAN, per, Meteorologiya i Gidrologiya,  
No 6, June 1968, pp 3-124.  
JPRS 46556

Meteorology and Hydrology, 148 pp.  
RUSSIAN, per, Meteorologiya i Gidrologiya,  
No 7, 1968, pp 3-124.  
JPRS 46566

Cavitation Problems, by A. D. Pernik.  
RUSSIAN, bk, Problemy Kavitatsii, 1966, pp 1-439.  
\*FTD-HT-23-802-68C

Tall Building Construction in Seismic Regions,  
by A. Kazarov, S. Shaginyan, 5 pp.  
RUSSIAN, per, Promyshlennost' Armenii, No 6,  
1968, pp 46-48.  
JPRS 46407

Mackerel Fisheries to Develop in Pacific, by  
N. A. Semenov, 7 pp.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 44, No 5,  
1968, pp 42-45.  
JPRS 46,342

Upper Mantle Inhomogeneity in the Western Part  
of Central Asia, by V. I. Shraytman.  
RUSSIAN, per, Sovetskaya Geologiya, No 8, 1967,  
pp 101-106.  
\*ACIC TC-1476

The Sadko-2 Underwater Laboratory,  
by A. V. Mayer, V. Ye. Dzhus, 8 pp.  
RUSSIAN, per, Sudostroyeniye,  
Leningrad, May 1968, pp 11-14.  
JPRS 46427

Scientific  
Earth Sciences & Oceanography (Contd)

Effect of Admixtures of Surface-Active Substances  
on the Effectiveness of Ice-Forming Solutions of  
Phloroglucinol, Silver Iodides and Lead Iodides,  
by T. N. Gromova, N. V. Glikl, 11 pp.  
RUSSIAN, per, Trudy Glavnoy Geofizicheskoy  
Observatorii, No 186, 1966, pp 18-25.  
JPRS 46050

Wealth of Rivers, Seas and Oceans, 5 pp.  
RUSSIAN, np, Vodnyy Transport, 6 Aug 1968,  
p 1.  
JPRS 46407

Benthic Fauna of the Norwegian-Iceland Area as  
an Indicator of Water Regime, by  
Z. I. Kobayakova, 9 pp.  
RUSSIAN, per, Zoologicheskii Zhurnal, Vol 39,  
No 3, 1960, pp 321-326. P50019868-V  
Dept of Navy N00 tr 390

Pelagic Larvae of Some Polychaeta in the White  
Sea, by V. A. Sveshnikov, 19 pp.  
RUSSIAN, per, Zoologicheskii Zhurnal, Vol 39,  
No 3, 1960, pp 343-355. P500198768-V  
Dept of Navy N00 tr 389

Cartographic Compilation, by Jacques Bertin.  
FRENCH, per, Bulletin du Comite Francais de  
Cartographie, No 36, May-June 1968, pp 62-65.  
ACIC TC-1478

On the Design of Arch Dams of Complex Configu-  
ration by the Method of Dismembering and Taking  
into Account the Yielding Nature of the Foun-  
dation, by L. A. Rozin, 40 pp.  
RUSSIAN, per, Izvestiya Vsesoyuznogo Nauchno-  
Issledovatel'skogo Instituta Gidrotekhniki  
Imeni B. E. Vedenceva, Vol 79, 1965, pp 127-154.  
CPSTI TT 67-59012

Principles of Absolute Differential Geometry  
of the Earth's Potential Field, by A. Marussi.  
FRENCH, per, Bulletin Geodesique, No 14, 1949,  
pp 411-439.  
ACIC TC-1391

On a Very General Integral Equation of Gravimetry,  
by J. J. Levallois.  
FRENCH, per, Bulletin Geodesique, No 50, 1958,  
pp 36-49.  
ACIC TC-1390

Scientific  
Earth Sciences & Oceanography (Contd)

The Alimentary Regimen of Three Antarctic Teleostei Nothothenidae (Adelie Land), by Patrick Arnaud, Jeanne Cluade Hurea. FRENCH, per, Bull Inst Oceanogr Monaco, Vol 66, No 1368, 1966, 24 pp. P500225568-V  
Dept of Navy NIC Trans No 2652

Survey of Mining Activity in Mauritania, 13 pp. FRENCH, per, Europe France Outre-Mer, Apr-May 1968, pp 33-39. JPRS 46,320

Investigation of the Scale Effect of Cavitation Erosion, by J. Varga, Gy. Sebestyen, 27 pp. GERMANY, per, Acta Techn. Hung. No 51, 1965, pp 361-379 P100208668-V  
FTD-HT-23-508-67

Astrogeodetic and Gravimetric Work During the Construction of a Laboratory for Inertial Systems, by R. Sigl. GERMANY, rpt, Astronomisch-Geodatische und Gravimetrische Arbeiten bei der Errichtung eines Labors für Inertialsysteme, 1967, 41 pp. ACIC TC-1378

An Attempt to Determine the Unknown Parts of the Earth's Gravity Field From Observations of Successive Satellite Transits, by K. Arnold, L. Stange. GERMANY, per, Gerlands Beiträge zur Geophysik, Vol 77, No 3, 1968, pp 185-190. ACIC TC-1477

Rain Erosion During Ultrasonic Velocity, by G. Hoff, 14 pp. GERMANY, per, Flug. Rev. International, No 11, 1967, pp 33-38. AEC-Sc-T-68, 1533 P011252308

The Determination of Geoid Undulations From Free-Air Anomalies, by K. Arnold. GERMANY, per, Veröffentlichungen des Geodatischen Instituts in Potsdam, No 12, 1959, pp 5-50. ACIC TC-1380

On the Determination of the Geoid From Satellite Observations, by E. Groten. GERMANY, per, Zeitschrift für Vermessungswesen, Vol 91, No 5, 1966, pp 164-168. ACIC TC-1422

Scientific  
Earth Sciences & Oceanography

Estimation of the Weights of the Error Equations in the Adjustment by Observation Equations, by K. Kubik. GERMANY, per, Zeitschrift für Vermessungswesen, Vol 92, No 5, 1967, pp 173-178. ACIC TC-1423

Current Problems of Engineering Geodesy Activity, by Dr. Laszlo Balazs, 16 pp. HUNGARIAN, per, Geodezia es Kartografia, No 2, 1968, pp 92-98. JPRS 45843

Thematic Cartographic Conference Held in Dresden, by Arpad Papp-Vary, 11 pp. HUNGARIAN, per, Geodezia es Kartografia, Budapest, No 3, 1968, pp 222-224. JPRS 46421

Calculation of Discharge Through Openings and Over Spillways on the Basis of the Flow Equation, by Janusz Laszewski, 10 pp. POLISH, per, Gospodarka Wodna, Vol 25, No 12, 1965, pp 458-461. CFSTI TT 67-56046

The Soils of the Voivodship of Kielce, by Michal Strzemiński, 28 pp. POLISH, per, Przegląd Geograficzny, Vol 26, No 1, 1954, pp 47-65. CFSTI TT 66-57015

Activities of the Center for Photogrammetry, by N. Zegheru, S. Radu, 5 pp. ROMANIAN, per, Buletin de Fotogrammetrie, Bucharest, March 1968, pp 3-8. JPRS 46421

Survey of Military Topographic Service History, by Vasile Suta, 10 pp. ROMANIAN, per, Revista de Geodezie si Organizarea Teritoriului, Bucharest, March 1968, pp 61-70. JPRS 46421

Improvement of Quang Ninh Coal Mining Discussed, 7 pp. VIETNAMESE, np, Nhan-dan, 18 Jul 1968, p 2. JPRS 46,358

Scientific  
Earth Sciences & Oceanography (Condt)

Best Source of Water Used in Highlands, by  
Nguyen Van Mau, 5 pp.  
VIETNAMESE, np, Suc-khoe, July 1968, pp 4, 8.  
JPRS 46389

Electronics & Electrical Engineering

On the Multiterminal Computer, by  
M. V. Mishurnaya, 4 pp.  
RUSSIAN, rpt, AN BSSR. Institut Tekhnicheskoy  
Kibernetiki. Vychislitel'naya Tekhnika, 1965,  
pp 10-14. FI00242468  
FTD-MT-24-236-67

Magnetic Immediate-Access Storage  
Unit (Mozu) on Ferrite Pairs, by  
G. K. Afanas'yev, 8 pp  
RUSSIAN, bk, AN BSSR. Institut  
Tekhnicheskoy Kibernetiki.  
Vychislitel'naya Tekhnika, 1965,  
pp 140-148  
FI00163768-V  
FTD-MT-24-327-67

Some Problems in Generating Numerical  
Information for Visual Observation, by  
V. F. Yur'yev, K. O. Shepelenko, 4 pp.  
RUSSIAN, per, AN BSSR. Institut Tekhnicheskoy  
Kibernetiki. Vychislitel'naya Tekhnika, 1965,  
pp 163-167. FI00245768-V  
FTD-MT-24-343-67

Scanning Device Utilizing a Fiber-  
Optical Converter, by O. I. Karyagin,  
6 pp  
RUSSIAN, bk, AN SSSR. Institut  
Avtomatiki i Telemekhaniki.  
Tekhnicheskaya Kibernetika, 1965,  
pp 326-330  
FI00163268-V  
FTD-MT-24-314-67

Some Aspects of Pattern Recognition with the  
Application of Threshold Elements, by A. B.  
Shubin, 9 pp.  
RUSSIAN, per, AN SSSR. Institut Avtomatiki i  
Telemekhaniki. Samoobuchayushchiyesya Avtomaticheskaya Sistemy, 1966, pp 94-101.  
FI00217868-V  
FTD-HT-23-1044-67

Scientific  
Electronics & Electrical Engineering (Condt)

Analog-Digital Computer Using Magnetostrictive  
Delay Lines, by M. M. Sukhomlinov, M. K. Ferenots,  
10 pp.  
RUSSIAN, rpt, AN SSSR. Institut Avtomatiki i  
Telemekhaniki (Tekhnicheskoy Kibernetiki)  
"Vychislitel'naya Tekhnika v Upravlenii", 1966,  
pp 143-152. FI00244968-V  
FTD-MT-24-289-67

A Computer for a Marine Gravimeter With an  
Optical-Mechanical Converter, by I. P. Bashilov,  
V. A. Kononov, 24 pp.  
RUSSIAN, rpt, AN SSSR. Institut Fiziki Zemli.  
Pribory Dlya Opredeleniya Sil'y Tyazhesti na  
More i Ikh Issledovaniya. Moscow, Izd-vo Nauka,  
1966. FI00251268-V  
FTD-MT-24-13-68

Electronic Digital Computer Simulation  
of One Method, by A. M. Kukinov,  
V. S. Fayn, 14 pp.  
RUSSIAN, per, AN SSSR. Institut Problem  
Peredachi Informatsii. Problemy  
Peredachi Informatsii. Teoriya Peredachi  
Informatsii. Nauka. Moskva., No 16,  
1964, pp 48-56  
FI00201868-V  
FTD-HT-67-332

The Optimum Method of Pattern Recogni-  
tion for Mutually Correlated Charac-  
teristics, by I. T. Turbovich, 10 pp.  
RUSSIAN, bk, AN SSSR. Institut Problem  
Peredachi Informatsii. Opoznanie  
Obrazov. Teoriya Peredachi Informatsii,  
1965, pp 3-10.  
FI00227468-V  
FTD-HT-23-962-67

The Problem of Documental Information, by  
G. G. Vorob'yev, 39 pp.  
RUSSIAN, per, AN SSSR. Nauchnyy Sovet po  
Kibernetike. Seriya "Organizatsiya i  
Upravleniye." Kibernetika i Dokumentalistika,  
1966, pp 5-34. FI00240568-V  
FTD-HT-23-659-67

Microphotoreproduction Methods of Reducing  
Documental Information, by S. A. Lipkin, 47 pp.  
RUSSIAN, per, AN SSSR. Nauchnyy Sovet po  
Kibernetike. Seriya "Organizatsiya i  
Upravleniye." Kibernetika i Dokumentalistika,  
1966, pp 35-80. FI00240568-V  
FTD-HT-23-659-67



Scientific  
Electronics & Electrical Engineering (Contd)

Use of Edge-Punched Cards for Abstract Information on the Basis of the RZh "Metallurgiya", by T. P. Kolesnikova, A. V. Shmeleva, 10 pp. RUSSIAN, per, AN SSSR. Nauchnyy Sovet po Kibernetike. Seriya "Organizatsiya i Upravleniye." Kibernetika i Dokumentalistika, 1966, pp 81-89. P100240568-V  
FTD-HT-23-659-67

Ways of Using Information Search Systems in Medicine, by N. M. Amosov, O. P. Mintser, 13 pp. RUSSIAN, per, AN SSSR. Nauchnyy Sovet po Kibernetike. Seriya "Organizatsiya i Upravleniye." Kibernetika i Dokumentalistika, 1966, pp 90-100. P100240568-V  
FTD-HT-23-659-67

Solution of Some Information Logic Problems of General Chemistry on Electronic Digital Computers, by A. L. Seyfer, 45 pp. RUSSIAN, per, AN SSSR. Nauchnyy Sovet po Kibernetike. Seriya "Organizatsiya i Upravleniye." Kibernetika i Dokumentalistika, 1966, pp 101-137. P100240568-V  
FTD-HT-23-659-67

An Information System on the Mathematical Theory of Experimentation, by V. V. Nalimov, Yu. P. Adler, 28 pp. RUSSIAN, per, AN SSSR. Nauchnyy Sovet po Kibernetike. Seriya "Organizatsiya i Upravleniye." Kibernetika i Dokumentalistika, 1966, pp 138-149. P100240568-V  
FTD-HT-23-659-67

Setting Up Reliability Networks of Neuron-Like Elements, by V. G. Totzenko, B. M. Yegorov, 12 pp. RUSSIAN, bk, AN SSSR. Nauchnyy Sovet po Kompleksnoy Probleme Kibernetika. Elektronika, 1965, pp 147-154. P100201268-V  
FTD-HT-23-798-67

About Certain Simpler Realizations of a Computer Medium, by E. V. Yevreinov, Yu. G. Kosarev, 12 pp. RUSSIAN, per, AN SSSR. Sibirskoye Otdeleniye. Institut Matematiki. Vychislitel'nyye Sistemy, No 16, 1965, pp 73-86. P100219368-V  
FTD-HT-23-914-67

Scientific  
Electronics & Electrical Engineering (Contd)

General-Purpose Computer Systems With Partially Variable Structure, by E. V. Yevreinov, 62 pp. RUSSIAN, per, AN SSSR. Sibirskoye Otdeleniye. Institut Matematiki. Vychislitel'nyye Sistemy, No 17, 1965, pp 3-60. P100227668-V  
FTD-MT-24-362-67

About the Solution of Problems on Universal Calculating Systems, by E. V. Yevreinov, Yu. G. Kosarev, 72 pp. RUSSIAN, per, AN SSSR. Sibirskoye Otdeleniye. Institut Matematiki. Vychislitel'nyye Sistemy, No 17, 1965, pp 106-164. P100228068-V  
FTD-MT-24-335-67

Statistical Investigations of the Reliability of a Reading Automat With Optical Correlation, by V. K. Yeliseyev, 11 pp. RUSSIAN, bk, AN UKRSSR. Chitayushchiye Avtomaty i Raspoznaniye Obrazov, 1965, pp 113-124. P100226768-V  
FTD-HT-23-963-67

Magnetic Properties of Thin Ferromagnetic Films and the Performance Curves of Film Elements of Memory Matrices, by G. P. Zharikov, Yu. V. Ostapenko, 8 pp. RUSSIAN, bk, AN UKRSSR. Kiberneticheskaya Tekhnika, 1965, pp 11-18. P100218868-V  
FTD-HT-23-784-67

Digital Differential Analyzer "Navigator", by A. A. Gurakov, Yu. N. Kamayev, 10 pp. RUSSIAN, bk, AN USSR. Institut Kibernetiki. Vychislitel'naya Tekhnika i Upravleniye, 1966, pp 127-133. P100227368-V  
FTD-HT-23-965-67

Scientific  
Electronics & Electrical Engineering (Contd)

Theory of Capacitance Mathematical Machines,  
by G. Ye. Pukhov, 11 pp.  
RUSSIAN, rpt, AN UkrSSR. Institut Kibernetiki.  
Seminar po Metodam Matematicheskogo Modeliro-  
vaniya i Teorii Elektricheskikh Tsepey. Trudy.  
No 3, 1965, pp 54-63. P100243168-V  
FTD-MT-24-360-67

On Noise Immunity of Binary-Decimal  
Codes, by V. V. Yefimenko, 8 pp  
RUSSIAN, per, Avtometriya, No 2,  
1965, pp 63-68  
P100163168-V  
FTD-MT-24-312-67

The Relation of Certain Quality Indices in  
Controllable Linear Stationary Systems, by  
L. S. Gnoyenskiy, 8 pp.  
RUSSIAN, per, Doklady Akademii Nauk SSSR,  
Moscow, Vol 181, No 1, 1968, pp 35-38.  
JPRS 46525

Electrical Characteristics of the Explosion of  
Thin Metallic Wire in Vacuum, by E. K.  
Chekalin  
RUSSIAN, per, Energeticheskii Institut, Izd-vo  
"Nauka", pp 110-113.  
\*AFCR

Photoelectric Measuring Systems; Measuring of  
Linear and Angular Values, by A. V. Mironenko.  
RUSSIAN, monograph, Fotoelektricheskiye Izmeri-  
tel'nyye Sistemy: Izmereniye Lineynykh i Uglo-  
vykh Velichin, Moscow, Izd-vo "Energiya",  
1967, pp 1-360.  
\*FTD-HT-23-853-68C

A Language for Describing and Modeling  
Digital Structural Systems (TSMIOD),  
by Kh. Salum, 13 pp.  
RUSSIAN, per, AN ESTSSR. Izvestiya.  
Seriya Fiziko-Matematicheskikh i  
Tekhnicheskikh Nauk, No 3, 1965,  
pp 464-471  
P100203568-V  
FTD-HT-67-204

Magnetic Field in a Channel of Rhomboidal  
Cross-Section in the Presence of a Steel  
Magnetic Conductor, by S. A. Gamzayeva,  
RUSSIAN, per, Izvestiya AN SSSR. Energetika i  
Transport, No 2, 1968, pp 28-33.  
\*FTD-HT-23-876-68C

Scientific  
Electronics & Electrical Engineering (Contd)

Some Principles of Learning and Learning with  
the Aid of Machines, by V. A. Dolyatovskiy,  
12 pp.  
RUSSIAN, per, Izvestiya vysshikh uchebnykh  
zavedeniy. Elektromekhanika, No 8, 1965,  
pp 881-890.  
P100218368-V  
FTD-HT-23-631-67

A Computer for the Statistical Analysis of  
Shadow Graphs of Processes, by L. V. Brusentsov,  
V. S. Burok, 12 pp.  
RUSSIAN, rpt, Izvestiya Vysshikh Uchebnykh  
Zavedeniy. Elektromekhanika, 1967.  
P100251368-V  
FTD-MT-24-107-68

Some Features of an Automatic Coordinate Spotting  
Device Using a Binary Quantized Signal Storage  
Unit, by L. Ya. Novosel'tsev.  
RUSSIAN, per, IVUZ. Radioelektronika, Vol 10, No  
8, 1967, pp 755-760.  
\*FTD-MT-24-334-68

A System for Automatic Color Recognition of  
Images, by V. A. Fesechko.  
RUSSIAN, per, IVUZ. Radioelektronika, Vol 10,  
No 8, 1967, pp 801-808.  
\*FTD-MT-24-349-68

Table Model of an Electronic, Key-  
Operated Computer, A. M. Shauman,  
M. K. Chirkov, 10 pp.  
RUSSIAN, per, Kafedra Vychislitel'noy  
Matematiki i Vychislitel'nyy Tsentr.  
"Vychislitel'naya Tekhnika i Voprosy  
Programirovaniya", No 1, 1962,  
pp 3-10  
P100199768-V  
FTD-HT-67-36

Automatic Adjustment of Magnetic Mass Spectro-  
meters to the Maximum Peak Value of an Ion  
Current Using an Extremum Controller,  
by A. A. Volkov.  
RUSSIAN, per, Kharkov. Institut Radioelektroniki.  
Priory i Sistemy Avtomatiki, No 5, 1967,  
pp 28-38.  
\*FTD-MT-24-359-68

An Approach to the Classification of Computer-  
Solved Problems, by I. V. Sergiyenko.  
RUSSIAN, per, Kibernetika, No 4, 1967, pp 31-38.  
\*FTD-MT-24-336-68

Scientific  
Electronics & Electrical Engineering (Contd)

Automated Management Needs New Approach,  
by L. Gaf and D. Zyuzin, 5 pp.  
RUSSIAN, np, Literaturnaya Gazeta, 8 May  
1968, p 10.  
JPRS 45686

Computation Technology in Automatic Control  
Systems, by V. I. Loskutov, 10 pp.  
RUSSIAN, per, Mekhanizatsiya i Avtomatizatsiya  
Proizvodstva, No 3, 1964, pp 44-47.  
P100223068-V  
FTD-HT-23-835-67

Synthesis of Systems for the Generation of  
Cyclic Correcting Codes, by Ye. A. Gurvits.  
RUSSIAN, per, Moscow. Institut Avtomatiki i  
Telemekhaniki Abstraktnaya i Strukturnaya  
Teoriya Relevnykh Ustroystv, Moscow, Izd-vo  
Nauka, 1966, pp 142-167.  
\*FTD-HT-23-878-68C

Experience in Circuit Line Design for a Small  
Transistorized Digital Computer, by V. S. Zubov.  
RUSSIAN, rpt, Moskovskaya Konferentsiya Molodykh  
Uchenykh i Spetsialistov, 1, 1964. Kibernetika:  
Sbornik Trudov Konferentsii Moscow, 1967, pp 172-  
183.  
\*FTD-MT-24-322-68

Investigation of Information Losses  
and Information Noise in Descriptor  
Information Retrieval Systems, by  
A. V. Sokolov, 18 pp  
RUSSIAN, per, Nauchno-Tekhnicheskaya  
Informatsiya, No 12, 1965, pp 23-28  
P100206068-V  
FTD-MT-24-156-67

Randomization of the Repeatability of Attri-  
butes in Information-Retrieval Systems Based  
on Punched Cards with Superpositions Coding,  
by L. Ia. Pirovich  
RUSSIAN, per, Nauchno-Tekhnicheskaya Informat-  
siya. Seriya 2. Informatsionnyye, No 7, 1967,  
pp 21-23.  
\*FTD-HT-23-881-68C

Scientific  
Electronics & Electrical Engineering (Contd)

Centralized System for Assembly and Processing  
of Information (SOFI), by M. N. Ivanov,  
V. I. Kadashevich, 22 pp.  
RUSSIAN, per, Nauchno-Tekhnicheskaya Konfer-  
entsiya po Yadernoy Radioelektronike, 6th  
Moscow, 1965. Trudy. Analizatory, Bloki Nako-  
pleniye i Obrabotka Informatsii, Vol 3, 1965,  
pp 110-136. P100244668-V  
FTD-MT-24-350-67

Centralized Control and Automatic Punching in  
a System of Overall Automation of Experimental  
Works, by V. T. Ilyukhin, V. D. Poletayev,  
9 pp.  
RUSSIAN, rpt, Nauchno-Tekhnicheskoye Obshchestvo  
Mashinostroitel'noy Promyshlennosti, Turbo-  
porshnevnyye Dvigateli. Sbornik Statev, 1965,  
pp 272-281. P100242568-V  
FTD-MT-24-319-67

Computerized Information Service at Tool  
Plant, by V. Kovelevskiy, 6 pp.  
RUSSIAN, per, NTO SSSR, No 3, 1968, pp 12-13.  
JPRS 45857

Computerized System for the Tool Plant,  
by Nikoley Aleksandrovich, 6 pp.  
RUSSIAN, per, NTO SSSR, No 3, 1968, pp 14-15.  
JPRS 45857

Self-Adjusting Teaching Machines,  
by A. M. Dovgiallo, 14 pp.  
RUSSIAN, per, Nauchnyy Sovet Po  
Kibernetike An USSR. Sektsiya  
Kibernetiki Kdntp. Seminar.  
"Programmirovannoye Obucheniye i  
Obuchayushchiye Mashiny", No 4, 1965,  
pp 77-97.  
P100228668-V  
FTD-HT-23-1313-67

The Problem of Pattern Recognition,  
by V. I. Varshavskiy, 17 pp.  
RUSSIAN, bk, Nauchno-Tekhnicheskoye  
Obshchestvo Radiotekhniki i  
Elektrosvyas i. Kibernetika i  
Elektronno-Vychislitel'naya Tekhnika,  
1962, pp 12-26  
P100204968-V  
FTD-HT-67-444

Scientific  
Electronics & Electrical Engineering (Contd)

Automation of the Separate Most Important Stages of Engineering Production Preparation is Presently Assuming an Especially Urgent Value, by G. Goranskiy, I. Mityayev, 7 pp. RUSSIAN, per, Nauka i Tekhnika, No 4, 1967, pp 2-5.  
P100220568  
FTD-MT-24-371-67

Machines Calculate, Control, Check, 6 pp. RUSSIAN, per, Nauka i Tekhnika, No 5, 1967, pp 24-26.  
P100220768-V  
FTD-MT-24-372-67

Certain Problems in the Application of Electronic Computers in the Mechanization of Accounting Procedures, by L. A. Petrunya. RUSSIAN, per, Priory i Sistemy Upravleniya, No 5, 1967, pp 30-32.  
\*FTD-MT-23-806-68

Use of Computers in Architecture and Building Industry, by G. G. Patrunov. RUSSIAN, mono, Primenie Elektronnykh Vychislitel'nykh Mashin v Arkhitekturno-Stroitel'nykh Proektirovaniy. Moskva, Stroitel'stvo, 1966, pp 7-18.  
\*FTD-MT-24-319-68

1000 Gigaelectronvolt Cybernetic Accelerator, by A. L. Mints, 14 pp. RUSSIAN, per, Priroda, Moscow, No 4, 1968, pp 8-15.  
JPRS 46447

On the Synthesis of Microprogrammed Automata, by V. G. Lazarev, 24 pp. RUSSIAN, per, Problemy Peredachi Informatsii, Vol 1, No 2, 1965, pp 63-78.  
P100226368-V  
FTD-MT-23-834-67

Digital Computer of Geometric Characteristics of Sections Relative to Central Axes, by V. P. Kolomyets, 8 pp. RUSSIAN, per, Samoletostroyeniye i Tekhnika Vozdushnogo Flota, No 4, 1965, pp 91-97.  
P100221368-V  
FTD-MT-23-850-67

Scientific  
Electronics & Electrical Engineering (Contd)

Simulation of Discrete Automata on General-Purpose Computers, by A. A. Utkin. RUSSIAN, rpt, Sb Vychisl Sistemy, Vol 25, 1966, pp 45-73.  
\*FTD-MT-24-320-68

Counting Circuits Using Magnetic Logical Elements, by N. L. Prokhorov. RUSSIAN, monograph, Schetnyye Skhemy Na Magnitnykh Logicheskikh Elementakh, Moscow, Izd-vo "Energiya", 1967, pp 1-47.  
\*FTD-MT-24-364-68

Some Problems in the Control of Territorial Networks of Transmission and Processing Of Information, by I. A. Bashmakov. RUSSIAN, Col; Simpozium Po Probleme "Vychislitel'nyye Sistemy Novosibirsk, 1966, Vychislitel'nyye Sistemy; Trudy Simpoziuma. Novosibirsk, Izd-vo "Nauka", 1967, pp 63-71.  
\*FTD-MT-23-879-68C

One Method of Realization of Automata in a Computing Medium, by B. A. Sidristyy. RUSSIAN, rpt, Simpozium po Probleme "Vychislitel'nyye Sistemy", Novosibirsk, 1966. Vychislitel'nyye; Trudy Simpoziuma, 1967, pp 209-214.  
\*FTD-MT-23-805-68

Conventional Symbols for Electrical Diagrams, 9 pp. RUSSIAN, per, Tekhnika v Selskom Khozyaystve, No 5, 1968, pp 43-47.  
JPRS 46083

Physical Bases of Certain Test Programs for Immediate-Access Magnetic Memory Units, by A. V. Gusev, 16 pp. RUSSIAN, per, Tsifrovaya Vychislitel'naya Tekhnika i Programirovaniye, No 1, 1966, pp 74-86.  
P100163668-V  
FTD-MT-24-321-67

Scientific  
Electronics & Electrical Engineering (Contd)

An Analog Computer Adaptor Unit for Determining the Autocorrelation and Crosscorrelation Functions, by Z. Sh. Kipshidze, A. M. Morozov, 15 pp.  
RUSSIAN, per, Trudy. AN GRUZSSR. Vychislitel'nyy Tsentr, Vol 6, No 1, 1965, pp 42-58  
P100164568-V  
FTD-MT-24-326-6,

Complete Module Equipment Check in a System of Two Identical Computers, by Yu. I. Torgov, V. V. Shafranskiy, 8 pp.  
RUSSIAN, rpt, AN SSSR. Vychislitel'nyy Tsentr. Trudy. Kontrol' Raboty Elektronnykh Vychislitel'nykh Mashin, 1965, pp 24-31. P100242968-V  
FTD-MT-24-353-67

Certain Aspects of the Interaction Between a Digital Computer and Its Control Apparatus, by N. G. Maslov.  
RUSSIAN, rpt, Tr Mosk in-t Elektron Mashinstr. Vol 2, 1966, pp 309-319.  
\*FTD-MT-24-321-68

Polynomial Interpretation System, by V. V. Zakharov, 7 pp.  
RUSSIAN, per, Trudy. Tomsk. Universitet. Sibirskiy Fiziko-Tekhnicheskoy Institut, Vol 47, No 4, 1965, pp 5-10. P100244868  
FTD-MT-24-351-67

Development of Theory of Invariance and its Applications, by G. M. Ulanov, 2 pp.  
RUSSIAN, per, AN SSSR. Vestnik, No 9, 1966, pp 108-109. P100200368  
FTD-MT-23-893-67

Investigation of Heat Transfer Phenomena in a Moving Medium, Carried out with the Aid of Digital Computers, by N. I. Nikitenko.  
RUSSIAN, per, V. Sb. Konvektivn. Teploobmen; Kiev. Nauk. Dumka, 1965, pp 94-104.  
\*FTD-MT-23-855-68C

Herald of Communications, 93 pp.  
RUSSIAN, per, Vestnik svyazi, Vol XXVIII, No 6, June 1968, pp 1-32.  
JPRS 46271

Scientific  
Electronics & Electrical Engineering (Contd)

Automated Information Systems for the VUZ, by V. V. Solodovnikov, F. Ye. Temnikov, 7 pp.  
RUSSIAN, per, Vestnik Vysshey Shkoly, Moscow, No 6, 1968, pp 52-55.  
JPRS 46532

A Method of Recognizing Handwritten Symbols, by V. M. Trusfus, V. I. Medvedev, 6 pp.  
RUSSIAN, rpt, Patent 156355 (779803/26-24) Class G061; 42m, 1400, pp 1-5.  
P100228568-V  
FTD-MT-67-122

A Multichannel Angular-Displacement-to-Digital-Code Converter, by L. P. Gorokhov, 3 pp.  
RUSSIAN, rpt, Patent 161649 (812918/26-24) Class 74b, 805, pp 1-2.  
P100228568-V  
FTD-MT-67-122

Electronic Oscillator of Nanosecond Pulses, by A. D. Sushkov, 2 pp.  
RUSSIAN, rpt, Patent 168756 (860187/26-9) Class 21a<sup>1</sup>, 3602, pp 1-2.  
P100229068-V  
FTD-MT-23-974-67

Binary-Decimal Reversible Counter, By N. I. Gorelikov, I. I. Korshever, 3 pp.  
RUSSIAN, Patent No. 174,008. P100227568-V  
FTD-MT-23-951-67

A Method for Correcting Multiple Error Bursts, by O. V. Popov, 6 pp.  
RUSSIAN, rpt, Patent 174207.  
P100228568-V  
FTD-MT-67-122

Device for Separating Periodic Voltages and Measuring their Period at a Low Useful Signal-to-Noise Ratio, by N. M. Kanonykhin, 2 pp.  
RUSSIAN, Patent 180,647. P100226468  
FTD-MT-23-967-67

Start of Machine Translation in Bulgaria, by A. Lyudskanov, 13 pp.  
BULGARIAN, per, Bulgarska Akademiya na Naukite. Spisanie, No 2, 1965, pp 64-74. P100228868  
FTD-MT-67-487

Scientific  
Electronics & Electrical Engineering (Contd)

Use of Computers Requires High Managerial Skills,  
 by Iv. Mandadzhiev, 7 pp.  
 BULGARIAN, per, Schetovodstvo i Kontrol, No 4,  
 1968, pp 39-45.  
 JPRS 46,325

The Determination of the Resonance Frequency  
 of Magnetrons with a Coaxial Waveguide Type  
 Transmitter, by Chang Chao-Yang.  
 CHINESE, per, Wu Hsien Tien Chi Shu, No 10,  
 1965, pp 18-21.  
 ACSI J-3768  
 ID 2204055567

Magnetron, by Yao Chi'd.  
 CHINESE, per, Wu Hsien Tien Chi Shu, No 4,  
 1966, pp 12-13.  
 ACSI J-3767  
 ID 2204055167

A Conversation on the Use of Miniature Stations,  
 by Wang Chi'ang-lin.  
 CHINESE, per, Wu Hsien Tien Chi Shu, No 4,  
 1966, pp 25-26.  
 ACSI J-3767  
 ID 2204055167

Universal Aggregate System for  
 Pneumatic Control, by V. Multrus,  
 8 pp.  
 CZECH, per, Automatizace, No 7, 1965,  
 pp 171-174.  
 P100200868-V  
 FTD-HT-23-683-67

Microminiaturization, by V. Benedikt,  
 J. Sedmichubsky, 229 pp.  
 CZECH, per, Mikrominiaturizace, Prauge, Sntl,  
 1965, pp 1-242. P100241768-V  
 FTD-HT-23-611-67

Problem of an Analog Memory in a  
 Linear Interpolator, by M. Preucil,  
 11 pp.  
 CZECH, per, Slaboprudy Obzor, Vol 27,  
 No 3, 1966, pp 160-164.  
 P100219268-V  
 FTD-HT-23-846-67

Scientific  
Electronics & Electrical Engineering (Contd)

Automation of Machines by Means of  
 Pneumatic Logical Elements, by  
 O. Brychta, 15 pp.  
 CZECH, per, Strojirenska Vyroba,  
 Vol 14, No 1, 1966, pp 14-23.  
 P100219168-V  
 FTD-HT-23-847-67

Some Instruments Built in the  
 Institute, 9 pp.  
 CZECH, bk, Vyskumne Problemy  
 Technickej Kybernetiky A Mechaniky,  
 1965, pp 299-306.  
 P100228768-V  
 FTD-HT-23-922-67

Use of an Analogue Computer at a  
 Melting Shop, by C. van den Hove,  
 P. Dauby  
 FRENCH, per, C.N.R.M., Mar 1967,  
 pp 39-43  
 BISI 6312

Use of an Analogue Computer to Calculate  
 Charges at Arbed's Basic Bessemer  
 Melting Shop at Esch-Belval, by  
 C. Pescatore  
 FRENCH, per, C.N.R.M., Mar 1967,  
 pp 45-47  
 BISI 6311

Data Processing for Rail System Discussed, 7 pp.  
 GERMAN, per, Fahrtfrei, Apr 1968, pp 6-7.  
 JPRS 45685

Realization of any Desired Type of  
 Storage Unit with the Aid of Components  
 from a Newly Developed Pneumatic Logic  
 System, by S. Pilz, 12 pp.  
 GERMAN, bk, Institut Fur Regelungs-Und  
 Steuerungstechnik Der Deutschen  
 Akademie Der Wissenschaften, Deutschland;  
 Institut Fur Automatisierung Und Kyber-  
 netik, Moskau Papers 1.3 and 1.4 of  
 Session I, Paper 6.2 of Session 6.  
 21-23 Oct 65, 1965, pp 1-10  
 P100207468-V  
 FTD-HT-67-408

Scientific  
Electronics & Electrical Engineering (Contd)

Pneumatic Logic Elements and Associated Peripheral Devices, by H. Topfer, 19 pp.  
GERMAN, bk, Institut Fur Regelungs- und Steuerungstechnik Der Deutschen Akademie Der Wissenschaften, Deutschland; Institut Fur Automatisierung Und Kybernetik, Moskau. Papers 1.3 and 1.4 of Session I, Paper 6.2 of Session 6. 21-23 Oct 65, 1965, pp 1-17  
P100207468-V  
FTD-HT-67-408

Homogeneous Microelectronic Structures and New Principles for the Manufacture of Logical and Sequential Installations, by I. V. Prangischvili, E. V. Babicheva, 19 pp.  
GERMAN, bk, Institut Fur Regelungs- und Steuerungstechnik Der Deutschen Akademie Der Wissenschaften, Deutschland; Institut Fur Automatisierung Und Kybernetik, Moskau. Papers 1.3 and 1.4 of Session I, Paper 6.2 of Session 6. 21-23 Oct 65, 1965, pp 1-19  
P100207468-V  
FTD-HT-67-408

Production Programming in the Orianenburg Cold Rolling Mill by Means of an Electronic Computer, by D. Oheim.  
GERMAN, per, Neue Hutte, Vol 13, No 4, 1968, pp 193-198.  
\*BISI 6596

Machine Computing VVB Director Views Outlook, by Manfred Michalk, 10 pp.  
GERMAN, per, Statistische Praxis, Jun 1968, pp 323-326.  
JPRS 46,354

High Sensitivity Fluorimeter, by L. Csanky, 4 pp.  
HUNGARIAN, per, Meres Es Automatika, Vol 13, No 8, 1965, pp 240-241. P100240968-V  
FTD-HT-23-1022-67

Use and Mathematical Model of a Digital Computer for Automation of a Wide Strip Hot Rolling Mill, by L. Pasolini, ITALIAN, per, Automazione e Automatismi, No 10, Sept/Oct 1966, pp 21-35  
BISI 5457

Scientific  
Electronics & Electrical Engineering (Contd)

NAR-6 Radio Specifications.  
JAPANESE, rpt, Incl to IR 1852004668.  
ACST J-4914  
FSTC-HT-23-169-68

Electronic Analog Installation for Examining the Kinetics of Nuclear Reactors, by T. Swierzawski, A. Fuszer, 3 pp.  
POLISH, per, Gliwice, Politechnika Slaska. Zeszyty Naukowe, Energetyka, No 17, 1964, pp 123-125. P100221668-V  
FTD-HT-23-913-67

Statistical Identification of a Human-Operator Model in Control Systems Subject to Random Disturbances, by A. P. Firla.  
POLISH, per, Pomlary Automatyka Kontrola, No 11, 1967, pp 518-522.  
\*FTD-HT-23-828-68

Speed and Voltage Control of Electrical Machines with the Aid of Thyristors (Transistors), by W. Paszek, 7 pp.  
POLISH, per, Przeglad Elektrotechniczny, No 8, 1965, pp 285-289  
P100202568-V  
FTD-HT-67-329

Encapsulating of REW 1501 Transformers with Modified Epoxy Resin, by Slawomir Dulnicz, 8 pp.  
POLISH, per, Przeglad Krolejowy Elektrotechniczny, Vol 12, No 11, 1965, pp 337-341.  
CRSTI TT 67-56039

Computer and Automation Research Discussed, by Ioana Cezar, 5 pp.  
RUMANIAN, np, Lucra, 20 July 1968, pp 1, 5.  
JPRS 46302

Scientific  
Energy Conversion (Non-Propulsive)

Ways Sought to Reduce Electrification Costs,  
by D. Komarov, E. Khavich, 8 pp.  
RUSSIAN, per, Ekonomika Stroitel'stva, No 6,  
1968, pp 48-52.  
JPRS 46,247

Soviet Power Increases Unit Size, Consolidates,  
by V. G. Zhilin, A. M. Nekrasov, 20 pp.  
RUSSIAN, per, Elektricheskiye Stantsii, No 2,  
1968, pp 14-22.  
JPRS 46404

Computers Evaluate Power Station Parameters,  
by D. G. Zhimerin, E. B. Akhundov, 13 pp.  
RUSSIAN, per, Elektricheskiye Stantsii, No 8,  
1968, pp 29-34.  
JPRS 46404

Increasing K-200-300 Turbine Efficiency, by  
T. F. Mikhayliki, N. V. Bugay, 5 pp.  
RUSSIAN, per, Energetik, No 6, 1968, pp 5-6.  
JPRS 46,247

Automation of Thermal Processes at Power Plants,  
by P. N. Manuylov, 6 pp.  
RUSSIAN, per, Energetik, July 1968, pp 1-3.  
JPRS 46276

Computation of Natural Frequencies of Vibra-  
tions of Francis Turbine Runners, by A. Ya.  
Aronson, 15 pp.  
RUSSIAN, per, Energomashinostroyeniye, No 3,  
1960, pp 8-12.  
CFSTI TT 67-59018

Methods of Designing Axial Compressors for  
Stationary Gas-Turbine Plants, by F. S. Bedcher,  
8 pp.  
RUSSIAN, per, Energomashinostroyeniye, No 3,  
1964, pp 30-32. P100240368-V  
FTD-HT-23-803-67

Auxiliary Equipment of Hydraulic Turbines,  
by N. K. Barkov, 11 pp.  
RUSSIAN, per, Energomashinostroyeniye, No 3,  
1965, pp 36-39.  
CFSTI TT 67-59019

Properties of the Middle Surface of Blade of  
An Axial Hydraulic Turbine, by B. Ya. Kantor,  
7 pp.  
RUSSIAN, per, Energomashinostroyeniye, No 3,  
1965, pp 41-43.  
CFSTI TT 67-59021

Scientific  
Energy Conversion (Non-Propulsive) (Contd)

Causes of Damage to 140 ABS. ATM. Boiler Super-  
heaters at 570° C, by V. F. Zlepko,  
M. M. Przhiyalkovskiy, 8 pp.  
RUSSIAN, per, Energomashinostroyeniye, May 1968,  
pp 7-8.  
JPRS 46,247

Chronicle. In the Division of Physico-Technical  
Problems of Power Engineering, by P. P. Orlov,  
13 pp.  
RUSSIAN, per, AN SSSR. Izvestiya. Energetika i  
Transport, No 2, 1965, pp 151-157. P100230668  
FTD-MT-67-61

Analysis of the Characteristics of a  
Single-Space Powerplant with a Thermo-  
electric Converter, by G. A. Varshavskiy,  
I. A. Rezgl', 10 pp.  
RUSSIAN, per, AN SSSR. Izvestiya.  
Energetika i Transport, No 1, 1967,  
pp 120-126  
P100202368-V  
FTD-HT-23-796-67

Investigation of Flow in Francis Hydraulic  
Turbines, by V. A. Kolychev, V. E. Lasenko,  
12 pp.  
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh  
Zavedeniy Energetika, No 2, 1966, pp 89-96.  
CFSTI TT 67-59022

Experimental Investigation of Cooling Air Flow  
through Channels Provided at the Rotor Roots  
of Gas Turbines, by Ye P. Dyban.  
RUSSIAN, per, IVUZ. Energetika, No 1, 1968,  
pp 63-69.  
\*FTD-HT-23-858-68C

Selecting the Optimal Degree of Reaction of  
a Single-Stage Turbine, by D. A. Dekhovich.  
RUSSIAN, per, IVUZ. Energetika, No 2, 1968,  
pp 52-56.  
\*FTD-HT-23-875-68C

Development of Soviet Power Engineering, by  
L. Malent'yev, 5 pp.  
RUSSIAN, np. Pravda, 12 July 1968, p 2.  
JPRS 46263



Scientific  
Energy Conversion (Non-Propulsive) (Contd)

Improvements in Power Engineering Services Urged,  
by V. Kuznetsov, 5 pp.  
RUSSIAN, np, Sovetskaya Belorussiya, 25 Jul. 1968,  
p 2.  
JPRS 46,247

Problems in Advances of USSR Heat Engineering,  
by D. G. Zhimerin, 10 pp.  
RUSSIAN, per, Teplotengetika, No 8, 1968, pp 11-  
13.  
JPRS 46404

Thermal Fatigue in EI435, EI703, and EI835 Sheet  
Materials, by V. N. Filipenko.  
RUSSIAN, rpt, Vsesoyuznoye Nauchno-Tekhnicheskoye  
Soveshchaniye po Voprosam Prochnosti Materialov i  
Konstruktivnykh Elementov pri Vysokikh Tempera-  
turakh, 4th, Kiev, Termoprochnost Materialov i  
Konstruktivnykh Elementov: Materialy Soveshchaniya  
No 4, 1967, pp 366-369.  
\*FTD-HT-23-817-68

Effect of Operating Conditions on the Efficiency  
of Turbine Blades for Aircraft Gas Turboengines,  
by F. F. Khalimon, G. N. Tret'yachenko.  
RUSSIAN, rpt, Vsesoyuznoye Nauchno-Tekhnicheskoye  
Soveshchaniye po Voprosam Prochnosti Materialov  
i Konstruktivnykh Elementov pri Vysokikh Tempera-  
turakh, 4th, Kiev, Termoprochnost Materialov i  
Konstruktivnykh Elementov: Materialy Soveshchaniya  
No 4, 1967, pp 434-441.  
\*FTD-HT-23-817-68

Transmission of Electric Power Without Conduc-  
tors, by Ying Chiao.  
CHINESE, per, K'o Hsueh Hua Pao, No 6, 1966,  
p 243.  
\*FTD-HT-23-839-68C

Boundary Layer on Radial Rotor Blades,  
by S. Apanasevich.  
POLISH, Coll, Lodz. Politechnika. Katedra  
Cieplynch Maszyn Przeplywowych. Ciepłne  
Maszyn Przeplywowe, No 63/64, 1967, Symposium  
Spresarkowy, Lodz, 16-18, XI, 1967, Referaty,  
Prace, Przyczynki, Komunikaty, No 1, pp 11-18.  
\*FTD-HT-23-871-68C

Scientific  
Energy Conversion (Non-Propulsive) (Cont)

Flow Losses Across Radial Rotors and the  
Optimal Number of Blades, by E. Tuliszka.  
POLISH, coll. Lodz. Politechnika. Katedra  
Cieplynch Maszyn Przeplywowych. Ciepłne  
Maszyn Przeplywowe, No 63/64, 1967, Symposium  
Spresarkowy, Lodz, 16-18, XI, 1967,  
Referaty, Przyczynki, Komunikaty, No 1,  
pp 77-83.  
\*FTD-HT-23-871-68C

Prognosis of Electric Power Use Developed, by  
L. Curelaru, N. Bordeianu, 8 pp.  
RUMANIAN, per, Revista de Statistica, No 5,  
May 1968, pp 64-69.  
JPRS 46,325

Materials

Extrusion of Tool Steel Without Press  
Residues, by V. P. Severdenko,  
V. S. Muras, 4 pp.  
RUSSIAN, per, AN SSSR. Vestsi. Seriya  
Fizika-Tekhnicheskikh Nauk, No 3, 1965,  
pp 93-95.  
P100227868-V  
FTD-HT-67-413

Antiwear Properties of Steel in the  
Presence of Polymer Powders, by  
G. V. Vinogradov, Yu. Ya Podol'skiy,  
9 pp.  
RUSSIAN, per, AN SSSR. Institut  
Mashinovedeniya Treniya i Iznos v  
Mashinakh, No 19, 1964, pp 127-137  
P100202168-V  
FTD-HT-23-502-67

Establishing the Techniques of Pressure Working  
of New Metals and Alloys, by V. G. Oshpov,  
B. V. Yegorov, 11 pp.  
RUSSIAN, rpt, AN SSSR. Institut Metallurgii.  
Nauchnoye Sostoyaniye i Perspektivy pri  
Deformirovani Metally, 1966, pp 143-151.  
P100243368-V  
FTD-HT-24-367-67

Scientific  
Materials (Contd)

Interaction Between the Metal and the Mold During the Casting of Titanium, by V. S. Pugin, M. A. Maurakh.  
RUSSIAN, per, AN SSSR. Institute Metallurgiy. Titan i Yego Splavy, 1961, 16 pp.  
FI00253068-V  
FTD-MT-24-357-67

Phase Equilibrium Diagram of a Chromium-Niobium-Molybdenum System, by V. N. Svechnikov, G. F. Kobzenko, 15 pp.  
RUSSIAN, bk, AN UKRSSR. "Fazovyye Prevrashcheniya V Metallakh i Splavakh", 1965, pp 147-158.  
FI00230168-V  
FTD-HT-23-520-67

Hafnium-Chromium Structural Diagram, by V. N. Svechnikov, A. K. Shurin, 9 pp.  
RUSSIAN, bk, AN UKRSSR. "Fazovyye Prevrashcheniya V Metallakh i Splavakh", 1965, pp 159-162.  
FI00230168-V  
FTD-HT-23-520-67

Measuring of Thermal Conductivity of Metals at High Temperatures, by V. E. Ivanov.  
RUSSIAN, per, Eksp. Tekh. Metody Vysokotemp. Izmer. AN SSSR, Inst. Met., 1966, pp 30-37.  
\*FTD-MT-24-354-68

Explosive Hardening of a High Mn Steel, by A. A. Deribas,  
RUSSIAN, per, Fizika Goreniya i Vozvya, No 3, 1966, pp 87-94.  
\*BISI 6597

Effect of Certain Factors of Programmed Loading on the Service Life of an Aluminum Alloy Exposed to an Aggressive Medium, by A. V. Karlashov, A. D. Gnatyuk, 7 pp.  
RUSSIAN, per, Fiziko-Khimicheskaya Mekhanika Materialov, Vol 2, No 3, 1966, pp 285-290  
FI00164868-V  
FTD-MT-24-311-67

Scientific  
Materials (Contd)

Mechanism of the Effect of Phosphorous and Molybdenum Impurities on Temper Brittleness of Steel, by V. I. Arkharov.  
RUSSIAN, per, Fizika Metallov i Metallovedeniye, Vol 2, Issue 1, 1956, pp 57-65.  
ACSI J-5119  
FSTC HT-23-189-68

Bauschinger Effect in Low-Carbon Steel During a Pure Shear, by G. B. Talypov.  
RUSSIAN, per, Issled Uprugosti Plast., No 5, 1966, pp 246-248.  
\*FTD-HT-23-808-68

Development of Deformation in Iron Subjected to Cyclic Loading at High Temperatures, by M. G. Lozinskiy.  
RUSSIAN, per, AN SSSR, Izvestiya. Metally, No 1, 1968, pp 142-147.  
\*FTD-MT-24-351-68

Laws of the Reduction of Iron From Ore Melts by Hydrogen, by V. V. Baidov.  
RUSSIAN, per, Izv VUZ Cher Met., No 1, 1964, pp 13-19.  
BISI 6413

On the Possibility of Keeping Blast-Furnace Flowing Conditions at the Optimum Level, by S. A. Vorob'ev, E. G. Mironov.  
RUSSIAN, per, Izvest VUZ- Chern Met., Vol 7, No 6, 1964, pp 191-198.  
HB 7356

The Existence of Nitrogen in Molten Iron-Free Slags, by S. K. Chuchmarev.  
RUSSIAN, per, Izv VUZ Cher Met., No 2, 1965, pp 5-9.  
BISI 6449

Effect of New Methods of Remelting and of Argon Purging on the Properties of EP-65 Stainless Steel, by P. I. Melikhov, A. V. Stepanov, 8 pp.  
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh Zavedeniy. Chernaya Metallurgiya, No 9, 1965, pp 80-85  
FI00206668-V  
FTD-HT-67-201

Scientific  
Materials (Contd)

Determination of the Temperature Field During Deformation, by A. A. Karakina.  
RUSSIAN, per, Izv VUZ Cher Met, No 8, 1966, pp 122-127.  
\*BISI 6630

Establishing the Gaso-Dynamic Resistance of the Individual Layers of a Sintering Burden, by V. I. Korotich, V. P. Puzanov  
RUSSIAN, per, Izv. VUZ Chern. Met., No 6, 1967, pp 33-37  
BISI 6041

Change in the Structure of Fracture and in the Impact Strength of 3Kh13N7S2 Steel owing to Overheating During Its Hot Working and Heat Treatment, by I. Ye. Kontorovich.  
RUSSIAN, per, IYUZ. Chernaya Metallurgiya, No 6, 1967, pp 113-116.  
\*FTD-HT-23-859-68C

Phase Composition of Sinters, by N. L. Gol'dshtein.  
RUSSIAN, per, Izv VUZ Cher Met, No 6, 1968, pp 35-40.  
\*HB 7517

Water Modelling of the Filling of Radial Rectangular-Section (continuous Casting) Moulds, by Yu. N. Yakovlev.  
RUSSIAN, per, Izv VUZ Cher Met, No 6, 1968, pp 52-56.  
\*HB 7515

On the Determination of the Strength of Tool Steels, by Yu. E. Sedov.  
RUSSIAN, per, Izv. VUZ Cher. Met., No 7, 1968, pp 117-121.  
\*BISI HB 7531

Stability and Critical Parameters of D.C. Arcs, by Fedchenko, Il'enko.  
RUSSIAN, per, Izv. VUZ Energetika, Vol 11, Nov 1967, pp 14-20.  
\*BISI 6613

The Effect of Some Additives on the Thermal Decomposition of Ammonium Perchlorate, by A. A. Shidlovskiy, L. F. Shmagin, 8 pp.  
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh Zavedeniy. Khimiya i Khimicheskaya Tekhnologiya, Vol 8, No 4, 1965, pp 533-538. P100245668-V  
FTD-MT-24-359-67

Scientific  
Materials (Contd)

Properties of Low-Nickel and Non-Nickel Carbuzized Grades of Steel Applicable for Heavy-Loaded Gear Wheels, by V. P. Antropov  
RUSSIAN, per, IYUZ. Mashinostr. No 7, 1966, pp 119-125.  
\*FTD-HT-23-874-68C

Effect of Heat Treatment on the Texture of Titanium Alloys Having Electrodeposited Chromium and Nickel Coatings, by E. I. Kontorovich.  
RUSSIAN, per, IYUZ. Tsvet Met, Vol 9, No 5, 1966, pp 124-128.  
\*FTD-HT-23-860-68C

Temperatures Occurring in Drop Forging Dies in Forging Liquid Steel, by N. T. Deordiev.  
RUSSIAN, per, Kuznechno-Shtampov, 1965, pp 11-13.  
\*BISI 6615

The Use of Molten Glass for Heating Steel Blanks, by I. V. Anisimova.  
RUSSIAN, per, Kuznechno-Shtampovochnoye Proizvodstvo, No 2, 1967, pp 37-40.  
\*FTD-MT-24-345-68

Research into the Protective Properties of Canning Lacquers by Electro-Chemical Methods, by I. L. Rosenfeld.  
RUSSIAN, per, Lak Mat i Ikh Prim, No 5, 1967, pp 76-80.  
BISI 6437

Adhesion Interaction in a Vacuum of Refractory Metals, Metal-Like Compounds and Hard Alloys, by A. P. Semenov, V. V. Posdnyakov, 14 pp.  
RUSSIAN, per, Mashinovedeniye, No 1, 1967, pp 116-127. P100243968-V  
FTD-MT-24-347-67

Effect of Stresses on Steady-State Temperature of Self-Heating of Plastics During Cyclic Loading, by S. B. Ratner.  
RUSSIAN, per, Mekhanika Polimerov, No 1, 1967, pp 179-182.  
\*FTD-HT-23-813-68

Study of Mechanical and Magnetic Properties of Iron-Nickel-Aluminum Permanent-Magnet Alloys, by A. A. Shekalov, Ya. I. Shkreis.  
RUSSIAN, per, Metallovedeniye i Obrabotka Metallov, No 4, Apr 1958, pp 29-38.  
HB 4185

Scientific  
Materials (Contd)

Conference on the Physics and Mechanics of the Strength and Failure of Metals, by V. M. Finkel'. RUSSIAN, per, Metallovedeniye i Termicheskaya Obrabotka Metallov, No 3, 1968, pp 76-79. \*FTD-HT-23-812-68

The Bottom and Top Pouring of Steel, by D. A. Smolyarenko. RUSSIAN, per, Metallurg i Gornorudn Promyshlennost', No 2, 1968, pp 23-27. HB 7526

Selection of Die Steels for High-Speed Metal-Forming Tools, by Yu. P. Sogrishin, M. A. Gaponov, 8 pp. RUSSIAN, per, (Nauchnyye Trudy) Moscow. Ekspperimental'nyy Nauchno-Issledovatel'skiy Institut Kuznechno-Pressovogo Mashinostroyeniya, No 13, 1966, pp 104-114. P100207568-V FTD-MT-24-190-67

Nedoymium Glass Inclusions, by V. S. Doladugins. RUSSIAN, per, Optiko-Mekhanicheskaya Promyshlennost', No 2, 1968, pp 38-41. \*FTD-HT-23-810-68

Influence of Composition on the Wear Resistance of a Plastic, by S. B. Ratner. RUSSIAN, per, Plasticheskiye Massy, No 1, 1967, pp 64-67. \*FTD-HT-23-862-68C

New Heat-Resistant Ferromagnetic Plastics, by L. V. Pevzner, K. N. Haryakina, 5 pp. RUSSIAN, per, Plasticheskiye Massy, Moscow, No 7, August 1968, pp 27-28. JPRS 46453

Antifriction Properties of Boron Nitride During Dry Friction in Gaseous Media and at Low Temperatures, by V. F. Afanas'yev, D. M. Karpinos, 5 pp. RUSSIAN, per, Poroshkovaya Metallurgiya, No 7, 1966, pp 49-52. P100204668-V FTD-HT-67-348

Scientific  
Materials (Contd)

On the Equations of Coupling Between Stresses and Strains in Glass-Fiber-Reinforced Plastics, by G. A. Van Fo Fy, 10 pp. RUSSIAN, per, Prikladnaya Mekhanika, Vol 1, No 2, 1965, pp 110-115. P10020468-V FTD-HT-67-342

Applications of Aluminum Alloys in Building Structures (Selected Sections) by T. N. Morakhevskiy, 27 pp. RUSSIAN, bk, Primeneniye Alyuminnevykh Splavov V Stroitel'nykh Konstruktsiyakh, Akademiya Stroitel'stva i Arkhitektury SSSR, Moskva, 1959, pp 11-48. P100204768-V FTD-HT-67-346

More Armenian Tufa, Cinder, Pumice, and Perlite, by M. Oganessian, Z. Atsagortsyan, 5 pp. RUSSIAN, per, Promyshlennost' Armenii, No 6, 1968, pp 11-13. JPRS 46407

Heat-Resistant Volcanic-Cinder Light Concretes, by V. Saakyan, A. Akopyan, 5 pp. RUSSIAN, per, Promyshlennost' Armenii, No 6, 1968, pp 50-52. JPRS 46407

Effect of Certain Elements on the Properties of Steel in Process of Crystallizing, by O. D. Moldavskii, A. P. Pronov. RUSSIAN, bk, Slitok i Svoistva Stali, 1961, pp 106-118. HB 7527

Special Features of Crystallization of Large Steel Ingots with Electrically Heated Hot Tops, by V. A. Malyshev. RUSSIAN, bk, Slitok i Svoistva Stali, 1961, pp 170-178. HB 7481

Resistance of Welded Joints Against the Formation of Cold Cracking, by R. A. Kozlov, 9 pp. RUSSIAN, per, Svarochnoye proizvodstvo, Moscow, No 7, July 1968, pp 1-3. JPRS 46511

Scientific  
Materials (Contd)

On the Effect of Chromium on the Kinetics of the Oxidation of Niobium, by R. F. Voytovich, 6 pp. RUSSIAN, per, Ukrainskiy Khimicheskiy Zhurnal, Vol 32, No 5, 1966, pp 445-448 P100201568-V FTD-HT-67-406

Mechanism of Hardening of Rail Steel by Inoculation, by L. I. Tushinskiy. RUSSIAN, per, Uprochnenie Rel'sovoi Stali, 1966, pp 3-16. \*BISI 6649

Fibrous Filtering Materials, by I. V.etryanov B. I. Rozlov, 76 pp. RUSSIAN, bk, Voloknistyye Fil'truyushchiye Materialy Pt, 1968, 78 pp. JPRS 46419

The Fatigue of Alloys at High Temperatures Viewed Statistically, by S. V. Sorensen. RUSSIAN, per, Vsb. Termoprochnost Materialov i Konstrukts. Elementov, 1965, pp 137-146. \*FTD-MT-24-355-68

Investigation of Zirconium Dioxide Erosion in a High-Temperature Gas Flow, by R. I. Abraytis. RUSSIAN, rpt, Vsesoyuznoye Nauchno-Tekhnicheskoye Soveshchaniye po Voprosam Prochnosti Materialov i Konstruktivnykh Elementov pri Vysokikh Temperaturakh, 4th Kiev. Termoprochnost' Materialov i Konstruktivnykh Elementov; Materialy Soveshchaniya No 4, 1967, pp 470-476. \*FTD-HT-23-817-68

Unloading and Warming Non-Metallic Building Materials Under Winter Conditions, by A. P. Valadimirov, E. Yu. Braynin. RUSSIAN, bk, Vygruska i Podogrev Nerudnykh Stroitel'nykh Materialov v Zimnikh Usloviyakh. ACSJ J-4788 FSTC HT-23-25-68

High-Temperature Inorganic Coatings for Modern Engineering, by A. M. Cherepanov, 23 pp. RUSSIAN, per, Vsesoyuznoye Khimicheskoye Obshchestvo, Zhurnal, Vol 10, No 5, 1965, pp 532-539 P100200068-V FTD-HT-23-497-67

Scientific  
Materials (Contd)

A Device for Measurement of the Radial Pressures of a Piston Ring on a Cylinder Wall, by M. S. Rozovskiyy, O. P. Fedosov, 5 pp. RUSSIAN, rpt, Patent 168924 (801378/26-10) Class 42k, 25, pp 1-4. P100228568-V FTD-HT-67-122

A Method of Grinding and Finishing Diamond Cones, by N. F. Pronkin, A. I. Solovyev, 1 p. RUSSIAN, Patent 172,647. P100222968 FTD-HT-23-1111-67

Method of Obtaining Polyimides, by S. V. Vinogradova, V. V. Korshak, 1 p. RUSSIAN, Patent No 183383 (850498/23-5) Class 39c, 10. P100229168 FTD-HT-23-1015-67

Method of Rolling Composite Aluminum-Magnesium Sheet, by L. I. Stoklitsiy, Yu. A. Vorob'yev. RUSSIAN, Patent No 198114, Class 49. \*FTD-HT-23-801-68

The Strain Aging of Oxygen in Molybdenum, by Ying-Liang Ma, Chu-I Sung, 14 pp. CHINESE, per, Chin Shu Haueh Pao (Acta Metallurgica Sinica), Vol 8, No 3, 1965, pp 332-338 P100207168-V FTD-HT-67-206

Tough Enemies Against the Strength of Aircraft. Fatigue and Creep of Metals, by Jen Tso, 6 pp. CHINESE, per, Hang K'ung Chih Shih, Vol 2, No 10, 1965, pp 14-15 P100187768 FTD-HT-67-289

New Cables, by Tzu-tu Lung, 6 pp. CHINESE, per, K'c Haueh Hua Pao, No 6, 1965, pp 182-183. P100217768-V FTD-HT-23-1006-67

Scientific  
Materials (Contd)

Workability of Stainless Chrome-Nickel Steels Stabilized by Titanium, by J. Jezek, J. Raineshova, 8 pp. CZECH, per, Hutnické Listy, No 2, 1966, pp 108-112. P100226068-V  
FTD-HT-23-557-67

The Effect of Molybdenum on the Heat-Resistance of CrMoV Steels with a Low Carbon Content, by T. Prnka, 10 pp. CZECH, per, Hutnické Listy, No 4, 1966, pp 265-269. P100218068-V  
FTD-HT-23-628-67

Kinetics of Desulphurization in the Electroslag Remelting Process, by J. Hlineny, Z. Buzek CZECH, per, Hutn. Listy, Vol 21, No 8, 1966, pp 524-532  
BISI 5641

Rolling Stainless Steel in Blooming Mills, by M. Zidek, Z. Zmyslovsky. CZECH, per, Hutník, Vol 18, No 2, 1968, pp 76-80. \*BISI 6584

Discussion on Petroleum, Tin and Uranium, by Eva Georgiova, 5 pp. CZECH, per, Reporter, Prague, 14-21 August 1968, pp 25-26. JPRS46570

Reducing Machine Noise Through the Wider Application of Plastics, by J. Ransdorf, 10 pp CZECH, per, Strojirenství, Vol 16, No 1, 1966, pp 45-49 P100202868-V  
FTD-HT-23-865-67

The Influence of Welding on Corrosion-Resistant Metals, by F. J. P. Hubert. DUTCH, per, Istetechniek, Vol 33, 1967, pp 8-15  
BISI 6067

Scientific  
Materials (Contd)

Tandem Process Test with High-Phosphorous Bearing Iron at the Open-Hearth Steelplant at Hayange, by A. Bassetti. FRENCH, rpt, Association Technique de la Siderurgie Francaise, (Paris), 14 Jan 1966, pp 13-20. \*BISI 6602

Application of Forgeability Tests to Rolling, by J. Bellot, M. Hugo. FRENCH, per, C.D.S. Circ., No 9, 1967, pp 2063-2091. \*BISI 6607

Metallurgical Characteristics of Blast Furnace Slag, by R. Jon. FRENCH, rpt, C.D.S. Circ., Oct 1967, pp 2217-2238. \*BISI 6606

The Differdange Works of the Societe Hadir: Comparison of Working Results of a Blast Furnace According to Whether it is Fed With a Band Sinter or a Sinter From a Rotary Furnace, by A. Faber. FRENCH, per, C.D.S. Circ., No 11, 1967, pp 2479-2491. BISI 6286

Metallographic Study of Break-Away During the Oxidation of Zirconium, by L. H. Keys, G. Beranger, et al., 26 pp. FRENCH, rpt., Center Metallurgical Research of the School of Mines in Paris, 1967. AEC-WAPD-Tr-0092 P911256368-V

L.D - Steel Quality Control. FRENCH, per, Cockerill - Cugres - Providence, Oct 1967, pp 8-14. \*BISI 6644

A Mechanism of Ductile Fracture of Metals, by J. Plateau, J. Gurland FRENCH, per, Comptes Rend., Vol 256, 28 Jan 1963, pp 1109-1112  
BISI 5545

Quantitative Aspects of the Electron Probe Microanalysis, by J. Philibert. FRENCH, per, Journal de Microscopie, Vol 6, Dec 1967, pp 889-915. \*BISI 6627

Scientific  
Materials (Contd)

Description of the Techniques Leading to the Examination, Identification and Analysis of the Very Fine Precipitated Phases in Metallic Materials, by R. Campos-Soares.

FRENCH, per, Journal de Microscopie, Vol 7, Jan 1968, pp 17-37.

\*BISI 6626

The Role of Niobium in Improving the Mechanical Properties of Weldable Constructional Steels, by P. Mandry.

FRENCH, per, Met.-Corros. Ind., Vol 42, 1967, pp 389-411; 433-462.

\*BISI 6657

The Use of Auxiliary Fuels in the Blast Furnace, by P. Dancoisne, J. Michard.

FRENCH, rpt, Paper D.1 Presented at the International Congress in Charleroi on Coke in the Iron and Steel Industry, 19-22 Sep 1966, pp 425-427.

BISI 5481

Simple Device For Quantitative Metallography, by M. Drouzy.

FRENCH, per, Prakt. Met., Vol 4, 1967, pp 481-486.

\*BISI 6647

Influence of the Principal Grate Sintering Parameters on the Operational Characteristics of the Rombas Works (Sidelor), by P. Bece.

FRENCH, per, Rev. Ind. Minerale, Vol 49, 1967, pp 73-98.

BISI 5956

The Relationship Between the Output of Ball Mills and the Amount of Materials Fed, by I. Bertume.

FRENCH, per, Rev Ind Minerale, Vol 49, Oct 1967, pp 740-744.

BISI 6410

Water-Distribution, Treatment, Recycling, by P. Guyard.

FRENCH, per, Rev Met., Vol 60, Nov 1963, pp 1089-1097.

\*BISI 6601

The Influence of Chemical Composition and Hot Rolling Conditions on the Tendency to Zoning of 17% Cr Steels, by E. Pouillard, B. Osdoit.

FRENCH, per, Rev. Met., Vol 63, 1966, pp 679-690.

BISI 5757

Scientific  
Materials (Contd)

Enthalpy of Two Blast Furnace Slags, by A. Ferrier.

FRENCH, per, Rev. Met., Vol 64, 1967, pp 15-19.

BISI 5960

Infra-Red Gas Analysers, by H. Pierrard.

FRENCH, per, Rev Met., Vol 64, Feb 1967, pp 119-125.

\*BISI 6634

Controlled Rolling - A Factor in the Development of Structural Steels, by J. H. van Der Veen.

FRENCH, per, Rev Met., Vol 65, No 1, 1968, pp 1-11.

\*BISI 6609

Investigations on Effervescence in the Solidification of Steel, by P. Rocquet.

FRENCH, per, Rev Met., Vol 65, Apr 1968, pp 257-268.

\*BISI 6645

Effect of Non-Metallic Inclusions on Certain Mechanical Properties of Steel, by A. Buch, J. Chodorowski.

FRENCH, per, Rev Met., Vol 65, Apr 1968, pp 269-276.

\*BISI 6637

Influence of Tellurium on the Forgeability of Structural Steels in the As-Cast and As-Worked Conditions, by G. Odin.

FRENCH, per, Rev. Met., Vol 65, 1968, pp 363-376.

\*BISI 6668

Alpha- and Gamma-Producing Action of the Principal Addition Elements in Nickel-Chromium Stainless Steels Derived From the 18-10 Type, by P. Guiraldanq.

FRENCH, per, Rev. Met. Mem. Sci., Vol 44, 1967, pp 907-939.

BISI 6337

On the Microfractographic Characteristics of Various Brittle Fractures Connected with the Tempering of Steels

by E. Menocarelli, H. de Leiris

FRENCH, per Rev. Met. Mem Sci.,

Vol 64, Feb 1967, pp 111-124

BISI 5701

Scientific  
Materials (Contd)

Application of an Equivalence Between Time and Temperature to the Study of Case Hardening and Decarburisation (with Discussion), by Ph. Maynier. FRENCH, per, Rev Met Mem Sci, Vol 64, Mar 1967, pp 203-212.  
BISI 6397

Improvements in Valve Bags Made of Elastic Material, by Laroche Freres, 8 pp.  
FRENCH, Patent No 1,077,360.  
Dept of Commerce  
Patent Office

Measurement of the Electromotive Force at 1500°C and X-Ray Investigations in the Iron-Oxyd-Aluminum-Oxyd System, by W. A. Fischer, A. Hoffmann. GERMAN, per, Arch Eisenh, Vol 26, Jan 1955, pp 43-50.  
\*BISI 6594

Reactions Between Iron-Manganese Melts and Molten Aluminates, by W. Oelsen, G. Heynert. GERMAN, per, Arch. Eisenh., Vol 26, 1955, pp 567-575.  
BISI 6069

Determination of the Size Distribution of Pores in Refractory Materials and Glass Filters, Part II, by L. Zagar. GERMAN, per, Archiv Eisenhüttenwesen, Vol 27, No 10, 1956, pp 657-663.  
HB 7486

The Crystallographic Properties of Deformation Twins in Martensite, by G. Krauss, W. Pitsch. GERMAN, per, Arch. Eisenh., Vol 35, July 1964, pp 667-675  
BISI 5537

Low-Stress Reheating of Large Workpieces, by G. Woelk. GERMAN, per, Arch. Eisenh., Vol 37, Oct 1966, pp 795-803  
BISI 5601

Investigations on the Enamel Adhesion on Steel Sheet, by H. E. Buhler, L. Leontaritis. GERMAN, per, Arch Eisenh, Vol 38, Aug 1967, pp 657-661.  
\*BISI 6595

Scientific  
Materials (Contd)

Viscosity Measurements of Slags, by H. J. Langhammer, H. G. Geck. GERMAN, per, Arch Eisenh, Vol 38, Sep 1967, pp 691-699.  
BISI 6411

Calculation of the Time Dependent Temperature of Hot Ingot Surfaces During the Time of Contact Between Ingot and Roll, by H. Preisendanz. GERMAN, per, Arch Eisenh, Vol 38, Dec 1967, pp 905-913.  
BISI 6280

Influence of Carbon, Nitrogen and Boron on the Precipitation Behaviour of an Austenitic Steel with About 16% Cr. 2% Mo. 16% Ni and Niobium, by H. Gerlack, E. Schmidtman. GERMAN, per, Arch Eisenh, Vol 39, Feb 1968, pp 139-149.  
BISI 6450

Smelting Conditions of Ores, Sinters and Pellets Under Simulated Blast Furnace Conditions, by K. D. Haverkamp. GERMAN, per, Arch. Eisenh., Vol 39, May 1968, pp 319-327.  
\*BISI 6673

Rolling Force Torque and Spread for Hot Rolling in the Speed Range 5-60 m/s, by G. Jackel. GERMAN, per, A.S.G. Mitt, Vol 2, No 4, 1965, pp 140-161.  
BISI 5639

Basic Equations for Tube Bending and Shaping, by G. Ditzes. GERMAN, per, Bänder Bleche, Vol 8, 1967, pp 380-390.  
\*BISI 6659

Production of Bent Tubes From Spirally Welded Tubes by Cold Bending, by F. O. Koch. GERMAN, Bänder Bleche, Vol 8, No 12, 1967, pp 822-831.  
\*BISI 6674

Ultrasonic Vibrations in Deformation Processes, by G. Gentsch. GERMAN, per, Bänder Bleche, Vol 9, 1968, pp 354-363.  
\*BISI 6671



Scientific  
Materials (Contd)

Determination of Oxygen Content in Steel by Hot Extraction, by W. Schwarz.  
GERMAN, per, Berg-Hutten. Monatsh., Vol 113, 1968, pp 1-10.  
\*BISI 6676

Possibility of Improving Hot-Ductility of Alloy Steels, by G. Kuhnelt.  
GERMAN, per, Berg Hutten Monatsh., Vol 113, No 3, 1968, pp 114-124.  
\*BISI 6598

Measures to Prevent the Dendritic Solidification of High-Speed Steel, by M. Petz, W. Schlager.  
GERMAN, per, Berg- und Huttenm Monatshefte., Vol 113, No 3, 1968, pp 135-141.  
HB 7472

Some Problems in the Use of Heat Resisting Sheet Particularly in the Enamelling Industry, by T. Hesse.  
GERMAN, per, Elech, Vol 12, Oct 1965, pp 570-577.  
BISI 5890

Computer Controlled Continuous Rolling Mill, by A. Romascan.  
GERMAN, per, Elech, Vol 14, Dec 1967, pp RP 5/2 to 5/7.  
\*BISI 6636

Vacuums for Lifting and Transportation of Sheet and Plate, by K. Ziesling.  
GERMAN, per, Elech, 15 May 1968, pp 270-274.  
\*BISI 6641

Results of the High Temperature Irradiation of Graphite and Pyrolytic Carbon in the Doureay Fast Reactor, Scotland, by W. Delle, H. J. Stocker, 8 pp.  
GERMAN, Paper, Conf. of Workers Comm. on Carbon of the German Ceramic Soc. Oct 13, 1967, in Basel, Switzerland. P911253668-V  
AEC-ORNL-Tr-1968

Deep Beams, by F. Leonhardt, R. Walther, 291 pp.  
GERMAN, per, Deutscher Ausschuss Fur Stahlbeton. Vertrieb Durch Verlag Von Wilhelm Ernst & Sohn, No 178, 1966, pp 1-161. P100220068-V  
FTD-HT-67-003-05

Scientific  
Materials (Contd)

Influence of Carbide-Formation on the Development of Hardness and Temper Stability in High Speed Steel S 12-1-4 = EV4 (SA 500), by E. Kunze, H. Brandis.  
GERMAN, per, DEW-Techn Ber., Vol 4, Apr 1964, pp 75-79.  
BISI 6424

Mechanical Properties of High Speed Steel and Peculiarities of Its Measurement, by W. Schmidt.  
GERMAN, per, DEW-Techn Ber., Vol 4, Apr 1964, pp 92-97.  
BISI 6420

Present State of the Production of Cold Wide Strip from Stainless Steel at the Deutsche Edelstahlwerke AG, by K. Tesche.  
GERMAN, per, DEW-Techn Ber., Vol 7, No 2, 1967, pp 40-48.  
\*BISI 6621

Experience with the Three-Metre Grating Polychromator and the Vacuum Fluorite Polychromator in Spectrometry of Steels, by K. Gaulrapp, G. Schmutzler  
GERMAN, per, Emissionspektroskopie. 1964, pp 292-305  
BISI 5386

Report on the Investigation of the Flow and Pressure Conditions of Bunkered Screened Material in Relation to the Type of Bunker, by W. Reissner.  
GERMAN, rpt, Fakultat fur Bergbau und Huttenwesen. 17 Feb 1961, p 17.  
\*BISI 6583

The Influence of Small Rates of Deformation on the Resistance of Deformation of Steels with Various Alloy Contents and of Non-Ferrous Metals at Hot-Working Temperatures, by O. Schulte.  
GERMAN, per, Forschungsber Nordrhein-Westfalen. No 1190, 1966, 92 pp.  
\*BISI 6629

Natural Gas in Heating and Heat-Treatment Furnaces, by T. Schmidt.  
GERMAN, per, Gaswarne International. Vol 16, Apr 1967, pp 174-179.  
BISI 6044

Scientific  
Materials (Contd)

Use of Natural Gas in the Steel Industry, by  
H. Weineck.  
GERMAN, per, Gaswarne International, Vol 16,  
Apr 1967, pp 180-189.  
BISI 6045

Some New Types of High-Temperature Air Heaters  
for Non-Oxidising Industrial Furnaces, by  
B. Pokorny.  
GERMAN, per, Gas Warne International, Vol 17,  
Jan 1968, pp 18-23.  
BISI 6543

Austenitic Cast Iron.  
GERMAN, per, German Specification DIN 1694,  
1966, pp 8.  
BISI 5783

The Hydraulic Properties of Blast Furnace Slag,  
by G. Musgnug.  
GERMAN, per, GHH-Konzern, Mitt Forsch Anst.  
July 1968, pp 153-168.  
\*BISI 6585

Application of the Tatur-Shrinkage-Test for Works  
Control of Brass Die-Cast Melts, by  
R. Schlatter.  
GERMAN, per, Giesserei, Vol 51, 14 May 1964,  
pp 282-289.  
\*BISI 6611

Melting of Stainless Steels in a Vacuum  
by W. Stawicky  
GERMAN, per, Giesserei, Vol 53,  
14 April 1966, pp 229-237  
BISI 5530

On the Formation of Pinholes in Spheroidal Gra-  
phite Cast Iron, by K. H. Tiegel.  
GERMAN, per, Giesserei, Vol 55, No 8, 1968,  
pp 169-174.  
HB 7441

Spheroidal Graphite Cast Steel, by F. Henke.  
GERMAN, per, Giesserei-Praxis, No 4, 1967, pp 53-  
57.  
BISI 5594

Mass Production of Steelwork Moulds, by L. Kovari.  
GERMAN, per, Giessereitechnik, Vol 11, Nov 1965,  
pp 323-328.  
BISI 5562

Scientific  
Materials (Contd)

Use of Spirally Welded Large Diameter Pipes for  
Foundations in harbour Construction and Under-  
ground Structures, by O. Boke.  
GERMAN, per, Hansa Messeheft, Apr 1964, pp 765-  
769.  
BISI 5549

Mechanism of Growth and Structural Constitution  
of the Iron-Boride Layer and Diffusion Zone Pro-  
duced when Boronizing Iron in the Presence of  
Carbon, Part II, by H. Kunst, O. Schaaber.  
GERMAN, per, Harterei-Technische Mitteilungen,  
Vol 22, No 1, 1967, pp 12-25.  
HB 7122-II

Development of a Mould-Killed Special Deep-  
Drawing Quality Steel for Sheet and Cold Strip  
at Hoesch AG Steelworks, by H. J. Lehmann.  
GERMAN, per, Hoesch Ber, Vol 1, No 4, 1966,  
pp 16-24.  
BISI 6310

Effect of Continuous Casting on Machine Flame  
Scarfing, by A. Pfeuffer.  
GERMAN, per, Kleppzig Fachber, Vol 73, Nov 1965,  
pp 519-523.  
BISI 5108

The Result of Metal Cutting Research on the  
Composition of Sintered Carbides and Their  
Allocation to Metal Cutting Work on the Basis of  
the ISO Allocation System, by H. Beutal.  
GERMAN, per, Der Maschinenmarkt, Vol 66, No 19,  
1966, pp 35-41.  
BISI 6422

Ultrasonic Measurement of Hardening Depth of  
Steel Rolls, by J. Koppelman.  
GERMAN, per, Materialprufung, Vol 9, Nov 1967,  
pp 401-405.  
\*BISI 6570

Investigations on the Use of Ultrasonic Attenu-  
ation Measurements for Distinguishing Various  
Microstructures of 42 CrMo4 Steel, by J. Pirs.  
GERMAN, per, Materialprufung, Vol 10, No 2,  
1968, pp 43-49.  
\*BISI 6590

Large-Scale, Industrial Deposition of Protective  
Layers on to Steel Strip Using Vacuum Evaporation,  
by W. Reichelt.  
GERMAN, per, Metalloberfläche, Vol 20, 1966,  
pp 474-478.  
BISI 5886

Scientific  
Materials (Contd)

The Influence of the Nature of Water  
On Cavitation and Corrosion Damage  
Undergone by Materials, by  
R. Schulmeister  
GERMAN, per, Metallüberfläche,  
Vol 21, No 3, 1967, pp 68-73  
BISI 5736

Thermometric Determination of Impurities in  
Metals, by I. Sajo, B. Sipos.  
GERMAN, per, Mikrochim Acta, No 3, 1967, pp 248-  
268.  
BISI 5993

Hydraulic Descaling Plant for a Hot Strip Mill,  
by O. Hennig.  
GERMAN, per, Neue Hütte, Vol 9, No 6, 1964,  
pp 361-367.  
\*BISI 6656

Fundamental Studies of Materials for Semi-Hot  
Extrusion, by G. Fritsch, R. Siegel.  
GERMAN, rpt, Neue Hütte, 11 July 1966, pp 396-  
401.  
\*BISI 6631

Trends in the Development of High  
Tensile, Weldable, Structural Steels.  
Alloying of Structural Steels With  
Nb, V, Ti, Zr, etc., by F. Stadler  
GERMAN, per, Neue Hütte, Vol 11,  
Oct 1966, pp 606-608  
BISI 6231

Contribution to the Manufacture of Cold Tough  
Structural Steels for Use at a Temperature of  
-65°C, by H. Loscher.  
GERMAN, per, Neue Hütte, Vol 12, No 1, 1967,  
pp 6-12.  
BISI 5580

Weldable, Austenitic Materials for Use at  
Temperatures between 500 and 700°C, by I. Class.  
GERMAN, per, Neue Hütte, Vol 12, 1967, pp 102-111.  
BISI 5739

Classifying the Coking Behaviour of Hard Coal,  
by W. Simonis.  
GERMAN, rpt, Paper B.2 Presented at the International  
Congress in Charleroi on Coke in the Iron and  
Steel Industry, 19-22 Sep 1966, pp 160-169.  
BISI 5473

Scientific  
Materials (Contd)

The Burstlein/Longwy-Sovaco Process for the  
Selective and Petrographic Preparation of Coal  
for Coking, by E. Burstlein.  
GERMAN, rpt, Preprint B.21 Presented at the Inter-  
national Congress in Charleroi on Coke in the  
Iron and Steel Industry, 19-22 Sep 1966, pp 276-  
285.  
BISI 5477

Investigation of Coke Reactivity  
Under Blast Furnace Conditions, by  
H. Schenck, W. Wenzel  
GERMAN, rpt, Paper C1 presented at  
the International Congress Charleroi  
on 'Coke in Iron and Steel', 19-22  
Sept 1966, pp 299-303  
BISI 5503

Reactivity of Reduction Coke in Blast  
Furnaces, by B. Marincek  
GERMAN, rpt, Paper C2 presented at the  
International Congress Charleroi on  
'Coke and Iron and Steel', 19-22 Sept  
1966, pp 304-310  
BISI 5504

The Effect of Coke Particle Size on Blast Furnace  
Operating Conditions and Operational Data, by  
H. Wysocki, F. W. Hillnhutter.  
GERMAN, rpt, Paper C.7 Presented at the Inter-  
national Congress in Charleroi on Coke in the  
Iron and Steel Industry, 19-22 Sep 1966, pp 369-  
384.  
BISI 5478

Assessing the Quality of Blast Furnace Coke, by  
F. Byrtus.  
GERMAN, rpt, Paper C.8 Presented at the Inter-  
national Congress in Charleroi on Coke in the  
Iron and Steel Industry, 19-22 Sep 1966, pp 338-  
347.  
BISI 5479

Alteration of Coke Properties by Partial Gasi-  
fication, by K. H. Koch.  
GERMAN, rpt, Preprint C.21 Presented at the Inter-  
national Congress in Charleroi on Coke in the  
Iron and Steel Industry, 19-22 Sep 1966, pp 325-  
329.  
BISI 5480

Scientific  
Materials (Contd)

Mathematical Determination of Rheological Properties of Glass Fiber-Reinforced Plastics for Calculating Construction Elements, by Z. P. Bazant, 28 pp.  
GERMAN, per, Plaste Und Kautschuk, Vol 12, No 10, 1965, pp 592-599  
P100201468-V  
FTD-HT-67-334

Use of Linear Analysis for Quantitative Description of the Structure of WC-Co Alloys, by H. E. Exner, H. F. Fischmeister.  
GERMAN, per, Prakt Met, Jan 1966, pp 19-27.  
\*BISI 6614

The Intermediate Stage After Quenching and Tempering Observed by Optical and Electron Microscopy, by K. L. Maurer, F. Jeglitsch.  
GERMAN, per, Radex-Rund, No 3/4, 1967, pp 539-546.  
\*BISI 6605

Examples of Micro-Reflectivity Measurement, by H. Scheidl, R. Idtsche.  
GERMAN, per, Radex-Rund, Aug 1967, pp 596-607.  
BISI 6452

Comet-Tails in the Polishing of Sheets of Corrosion-Resistant Austenitic Steel, by F. Bauer, J. Riedl.  
GERMAN, per, Radex-Rund, 1967, pp 635-640.  
BISI 6121

Direct Determination of Grain Size With the Hot Stage Microscope, by A. Kulmburg.  
GERMAN, per, Radex-Rund, No 3/4, 1967, pp 685-691.  
\*BISI 6652

Application of the Quantimet Television Microscope in Metallography, by N. B. Dudek.  
GERMAN, per, Radex-Rund, Aug 1967, pp 790-794.  
BISI 6456

Experience With Oil-Oxygen Burners in Arc and Open Hearth Furnaces, by M. Wahlster.  
GERMAN, per, Radex-Rund, Vol 3, 1968, pp 155-167.  
\*BISI 6662

Pure Breaking Toughness in the Impact Test - A New Notched Bar Impact Test, by U. Issarescu.  
GERMAN, per, Schweizer Arch., 1968, pp 40-49.  
\*BISI 6665

Scientific  
Materials (Contd)

The Properties of Steels Produced From Atomized Alloyed or Unalloyed Powders, by M. Dautsenberg.  
GERMAN, per, 2nd European Congress on Powder Metallurgy, 1968, pp 27.  
\*BISI 6666

Sintering Behaviour and Radial Compressive Strength of Fe-Sn and Fe-Cu-Sn Sintered Compacts, by F. Esper, K-H. Frieze.  
GERMAN, rpt, 2nd European Symposium on Powder Metallurgy, Stuttgart, 1968.  
\*BISI 6599

The Production of Iron and Alloy Powders by Atomization of Molten Metal, by M. Michalke, W. Scholz.  
GERMAN, rpt, 2nd European Symposium on Powder Metallurgy, 1968.  
\*BISI 6587

Production of Moulds by Powder Slip Casting, by A. G. Dobrowolskij.  
GERMAN, rpt, 2nd European Symposium on Powder Metallurgy, Stuttgart, Section 4.6, 1968, pp 1-16.  
\*BISI 6639

New Developments in Copper - and Nickel-Bearing Sintered Steels, with Special Reference to Applications of Such Steels, by G. Zapf, B. D. Hahn.  
GERMAN, rpt, 2nd European Symposium on Powder Metallurgy, (Stuttgart), May 1968, 30 pp.  
\*BISI 6624

New Studies of the Plastic Behaviour and Breaking Behaviour of Hard Metals, by J. Burbach.  
GERMAN, per, 2nd European Symposium on Powder Metallurgy, Paper No 7, 13, 1968, pp 1-30.  
\*BISI 6663

Structure and Strength of Glass Fibers, by Georgi M. Bartenjew  
GERMAN, per, Silikattechnik, No 10, 1967, pp 315-318.  
\*FTD-HT-23-865-68

Reduction Processes and Inter-Element Effects in Optical Emission Spectrographic Analysis of Steel II, by O. Herberg.  
GERMAN, per, Spectrochim. Acta., Vol 23B, 1968, pp 363-371.  
\*BISI 6669

Scientific  
Materials (Contd)

The Resistance of Copper Steel to Atmospheric Corrosion, by K. Daeges.

GERMAN, per, Stahl Eisen, Vol 46, 1926, pp 1857-1863.  
BISI 6266

Comparative Study of the Technical and Economic Characteristics of the Production and Processing of Sponge Iron. Part I, by U. Kalla, H.-D. Pantke.  
GERMAN, per, Stahl und Eisen, Vol 87, No 9, 1967, pp 534-539.  
HB 7208-I

Metallurgical Conditions for the Formation of Oxide Layers on Cemented Carbide Tools During Machining, by A. Wicher, R. Pape.  
GERMAN, per, Stahl Eisen, Vol 87, 19 Oct 1967, pp 1262-1269.  
\*BISI 6616

Tinning of Steel, by J. Siwert.  
GERMAN, Stahl Eisen, Vol 87, 1967, pp 1594-1599.  
BISI 6200

Rough Appraisal of Machinability of Low-Carbon Free-Cutting Steels, by A. Hauttmann.  
GERMAN, per, Stahl Eisen, Vol 88, 25 Jan 1968, pp 62-67.  
BISI 6212

Effect of the Cooling Conditions on the Descaling Properties of Wire Rod, by F. Funke, M. Heinrichs.  
GERMAN, per, Stahl Eisen, Vol 88, 21 Mar 1968, pp 270-279.  
\*BISI 6622

Austenite Grain Growth in Unalloyed, Chromium, Chromium-Manganese and Chromium-Vanadium Structural Steels Containing 0.15 to 0.6% Carbon, by E. Beuler.  
GERMAN, per, Stahl Eisen, Vol 88, 1968, pp 377-387.  
BISI 6515

Material Flow and Production Control in a Continuous Tube Rolling Mill Using a Data Processing Plant, by W. H. Philipp.  
GERMAN, per, Stahl Eisen, Vol 88, 2 May 1968, pp 445-450.  
BISI 6508

Scientific  
Materials (Contd)

Investigations on Roll Roughness and Transfer of Roughness to the Sheet During Temper Rolling, by W. Panknin.

GERMAN, per, Stahl Eisen, Vol 88, 1968, pp 484-491.  
\*BISI 6651

Principles and Possibilities of Hot Dip Galvanising Steel Wire, by D. Horstmann.  
GERMAN, per, Stahl Eisen, Vol 88, No 10, 1968, pp 499-507.  
\*BISI 6648

Investigations on the Metallurgy of the Oxygen Steelmaking Process for Pig Iron Rich in Phosphorus, by J. Schoop.  
GERMAN, per, Stahl Eisen, Vol 88, 13 June 1968, pp 628-637.  
\*BISI 6593

Metallurgical and Technological Fundamentals of Electroslag Remelting of Steel, by W. Holzgruber, E. Flockinger.  
GERMAN, per, Stahl Eisen, Vol 88, 13 June 1968, pp 638-648.  
\*BISI 6617

Studies of the Rolling Technique Used in the Reversing Roughing Train of a Wide Strip Mill, by O. Pawelski.  
GERMAN, per, Stahl Eisen, Vol 88, 1968, pp 689-699.  
\*BISI 6660

Supplementary Desulfurization of High-Carbon Iron, Using an [Ostberg] Stirring Device, by H. P. Schuls.  
GERMAN, per, Stahl und Eisen, Vol 88, No 7, 1968, pp 321-326.  
HB 7460

Segregation Bands in Austenitic Steels, by G. Gruttmann, H.-J. Schuller.  
GERMAN, per, Stahl Eisen, Vol 88, 11 July 1968, pp 713-726.  
\*BISI 6619

The Use of Powdered Lime with Different Calcining Degree in the Oxygen Top-Blowing Process for Pig Iron Rich in Phosphorus, by J. Schoop.  
GERMAN, per, Stahl Eisen, Vol 88, 11 July 1968, pp 756-766.  
\*BISI 6618

Scientific  
Materials (Contd)

Advantages of Rapid Determination of Oxygen in Steel for the Steel Plant, by H. Kobusch.  
GERMAN, per, Stahl und Eisen, Vol 88, No 9, 1968, pp 439-445.  
HB 7457

Measurement of Sound Intensity for Supervision of Slag Formation and Reactions in the Top Blowing of Low-P Hot Metal with Pure Oxygen, by F. Bardenheuer.  
GERMAN, per, Stahl Eisen, Vol 88, No 12, 1968, pp 613-620.  
\*HB 7492

Plant Experience with the Charging of Sponge Iron Pellets into the Arc Furnace, by M. A. Wahlster.  
GERMAN, per, Stahl Eisen, Vol 88, No 12, 1968, pp 621-627.  
\*HB 7499

Comparative Studies of Hot Workability of Austenitic Steel X 10 NiCrTi 36. 15 from the Basic Arc Furnace and After Remelting in the Electron-Beam Multichamber Furnace, by K. Skuin.  
GERMAN, per, Technik, Vol 22, No 8, 1967, pp 508-512.  
\*HB 7494

Higher Strength Steels Used for Pressure Vessels, by H. Wehrmann, 11 pp.  
GERMAN, per, Die Technik, Vol 23, No 7, Jul 1968, pp 446-449.  
JPRS 46,354

Reducing of Thick-Walled Tubes, by H. Biller.  
GERMAN, per, Techn Mitt, Vol 60, No 10, 1967, pp 418-422.  
BISI 6488

Segregation Phenomena in the Solidification of Steel Ingots in Small Moulds, by H. Wahlster, H. Brocker.  
GERMAN, rpt, Techn Mitt Krupp Forschungsber., Oct 1962, pp 73-82.  
\*BISI 6610

Investigation of the Reactions of Liquid High Iron (II) Oxide Slags with Solid Carbon, by H. Krainer.  
GERMAN, per, Techn Mitt Krupp Forschungsber., Vol 24, July 1966, pp 139-146.  
BISI 5669

Scientific  
Materials (Contd)

Origin and Importance of Residual Stresses, by A. Erker.  
GERMAN, per, V.D.I.Z., Vol 104, 21 Sep 1962, pp 1377-1388.  
BISI 5350

The Significance of Adjustments to Long-Time Creep Data, by W. Ruttmann, H. Kaes.  
GERMAN, per, VGB Mitt, Vol 48, Feb 1968, pp 1-9.  
BISI 6441

Quantitative Radiographic Phase Analysis of Different Types of Rust, by P. Keller.  
GERMAN, per, Werk Korros, Vol 18, Oct 1967, pp 865-878.  
\*BISI 6623

Steels for Intricate Corrosion Problems in the Chemical Industry, by J. O. Edstrom, B. Lofblad.  
GERMAN, per, Werk Korros, Vol 18, Nov 1967, pp 769-777.  
BISI 6525

The Study of Dependence on Potential of Inter-crystalline Corrosion of Sensitised Ferritic Chromium Steel Containing Approximately 17% Chromium, by G. Herbsleb.  
GERMAN, per, Werk Korros, Vol 19, No 3, 1968, pp 204-209.  
\*BISI 6640

Nonferrous Metals Must be Used More Economically, by W. Lange, I. Bohme, 5 pp.  
GERMAN, np, Die Wirtschaft, 25 July 1968, p 19.  
JPRS 46338

Dependence of Spectrographic Sulphur Determination on the Anisotropy of Sulphides in Steel, by W. Koch.  
GERMAN, per, Z. Analyt. Chem., Vol 225, No 2, 1967, pp 196-203.  
\*BISI 6670

Application and Advantages of Air-Cored Coils for the Continuous Measurement of the Magnetic Values of Electrical Steel Strip, by W. Frings, G. Hluchnik.  
GERMAN, per, Z. Angew. Phys., Vol 21, Nov 1966, pp 418-422.  
BISI 5607

Scientific  
Materials (Contd)

Corrosion Processes in Copper-Containing Steels, by C. Carius.  
GERMAN, per, Z Metallk, Vol 22, Oct 1930, pp 337-341.  
BISI 6480

The Crystal Structure and Composition of Oxide Layers on Iron-Chromium-Aluminum Alloys as a Function of the Thickness of the Oxide Layer, by I. Pfeiffer, 8 pp.  
GERMAN, per, Zeitschrift Fur Metallkunde, Vol 53, No 5, 1962, pp 309-312. P100247168-V  
FTD-HT-23-1014-67

Recording of Stress-Strain Curves with the Aid of a Computer, by H. Mecking.  
GERMAN, per, Z Metallk, Vol 58, No 3, 1967, pp 197-200.  
BISI 5967

Roll Cladding of Aluminum with Austenitic Chrome-Nickel Steel, by W. Thiele.  
GERMAN, per, Zeitschrift Metallkunde, Vol 58, No 10, 1967, pp 670-675.  
HB 7537

Electrochemical Behavior of Vacuum-Melted Chrome-Nickel Steels, by Thomas Draws, H. G. Feller, et al, 26 pp.  
GERMAN, per, Zeit. Metallkunde, Vol 58, No 10, 1967, pp 714-721. P911254568-V  
AEC-ORNL-Tr-10252

Effect of Neutron Irradiation on the Plastic Deformation of Iron Single Crystals of Different Carbon Content. II. Plastic Stress-Strain Curves, by Gerd-Peter Seidel, 15 pp.  
GERMAN, per, Zeit. Metall., Vol 59, No 1, 1968, pp 82-88. P911228668-V  
AEC-ORNL-tr-1950

Shape of Fusion Zone in Electron Beam Welding, by F. Koch, G. Neubert.  
GERMAN, per, Zis Mitteilungen, Vol 9, No 12, 1967, pp 1625-1633.  
HB 7535

Ferromanganese Manufacture, by P. Pilter.  
HUNGARIAN, per, Koh. Lapok, Vol 100, No 1, 1967, pp 22-29.  
BISI 5958

Scientific  
Materials (Contd)

Additives in Motor Oils Widely Developed, by Nandor Szava, 6 pp.  
HUNGARIAN, per, Koolaj es Foldgaz, No 2, Feb 1968, pp 59-60.  
JPRS 46,325

Modifications to Operating Practice and to Plant, Caused in Two Pusher Furnaces, for the Purpose of Controlling the Decarburisation of Steel, by F. Barba.  
ITALIAN, per, Met Ital, No 6, 1967, pp 401-413.  
BISI 5899

Influence of the Heating Programme on Product Quality with an Experimental Coke Oven, by M. Castelli, L. Falumbo.  
ITALIAN, rpt, Paper B.9 Presented at the International Congress in Charleroi on Coke in the Iron and Steel Industry, 19-22 Sep 1966, pp 249-260.  
BISI 5476

Studies on the Flash Resistance Sintering of Metal Powders, by T. Sakai.  
JAPANESE, per, J Jap Soc Powder Met, Vol 14, July 1967, pp 164-173.  
BISI 6308

Study on Sulphide Corrosion Cracking of Steels by Radio-Isotope Tracer Technique, by H. Iijima, K. Inamoto.  
JAPANESE, per, Nippon Kinzoku, Vol 32, No 1, 1968, p 19.  
\*BISI 6612

Effects of Additional Elements on Susceptibility of Austenitic Stainless Steels to Stress Corrosion Cracking in High-Temperature Water Containing Chloride, by G. Ito.  
JAPANESE, per, Nippon Kinzoku, Vol 32, No 3, 1968, pp 295-300.  
\*HB 7510

The Formation of Cube Texture in 50Ni-50Fe Alloy, by E. Nakae, A. Okada.  
JAPANESE, per, Nippon Kinzoku, Vol 32, No 4, 1968, p 9.  
\*BISI 6586

Fluorescent X-Ray Analysis of FeSi, FeMo, FeCr, FeSi-Mg, FeIn, and CaSi, by A. Tsukanoto.  
JAPANESE, per, Nippon Kinzoku, Vol 32, No 5, 1968, pp 473-478.  
\*HB 7511

Scientific  
Materials (Contd)

The Application of Large Rimming Steel Ingots to Cold Rolled Deep Drawing Steel Sheet, by K. Sugazawa.  
JAPANESE, per, Sumitomo Met., Vol 19, Apr 1967, pp 142-155.  
\*BISI 6220

On the Various Factors Affecting Atmospheric Corrosion of Steels, by M. Kowaka.  
JAPANESE, per, Sumitomo Metals, Vol 20, No 2, 1968, pp 33-42.  
\*BISI 6642

Study on Line Inspection From a Human Engineering Viewpoint, by M. Shimabukuro.  
JAPANESE, per, Techn. Rep. of Fuji Steel, Vol 16, No 3-4, 1967, pp 239-245.  
\*BISI 6664

The Mechanism of Formation of Microscopic Inclusions Produced by Air-Oxidation of Molten Steel, by K. Senda.  
JAPANESE, per, Tetsu-to-Hagane, Vol 53, Jan 1967, pp 11-27.  
BISI 6137

On the Tempering Behaviour of 3Cr-W, 3Cr-W-Co and 12Cr-W-Co Type Hot Work Tool Steels, by T. Nishimura.  
JAPANESE, per, Tetsu to Hagane, Vol 53, 1967, pp 116-130.  
BISI 5952

Theory of Solidification and Segregation, by K. Niwa.  
JAPANESE, per, Tetsu-to-Hagane, Vol 53, 1967, pp 1425-1441.  
\*BISI 6655

On the Fundamental Properties of High-Basicity Pellets, by K. Kuniti.  
JAPANESE, per, Tetsu to Hagane, Vol 54, No 4, 1968, pp 266-276.  
HB 7476

Draining by Elastic Drainpipes, by Herbert Lupa, 7 pp.  
English, per, Gospodarka Wodna, Vol 24, No 6, 1964, pp 208-210.  
COSTI TT 67-56047

Scientific  
Materials (Contd)

Experiments and Research on the Pouring of Rimming Basic Oxygen Furnace Steel at High Rates, by M. Stankiewicz.  
POLISH, per, Hutnik, Vol 35, No 4, 1968, pp 162-166.  
HB 7490

Highly Heat Resistant Epoxy Resins, by J. Jodlinski, W. Pradellok.  
POLISH, per, Polimery Tworzywa Wielkocząsteczkowe, No 7, 1967, pp 323-328.  
ACSI J-3898  
PSTC-HT-23-235-68

Increase in the Viscosity of Epoxy Resin During Hardening by Acid Anhydride, by P. Penczek.  
POLISH, per, Polimery Tworzywa Wielkocząsteczkowe, No 7, 1967, pp 328-331.  
ACSI J-3898  
PSTC-HT-23-235-68

Technological and Electrical Properties of Small-Viscosity Epoxy Compounds Cured at Elevated Temperatures, by M. Furmaniakowa, A. Jerzykiewicz, 7 pp.  
POLISH, per, Polimery-Tworzywa Wielkocząsteczkowe, Vol 10, No 8, 1965, pp 339-341.  
COSTI TT 67-56041

Magnetic Analysis of Textures in Transformer Sheets, by G. Soltysik.  
POLISH, per, Prace Inst. Hutniczych, Vol 20, No 1, 1968, pp 55-59.  
\*BISI 6667

Measurement of Microhardness in Cast Iron, by K. Sekowski.  
POLISH, per, Prs Odlew, Vol 14, No 3, 1964, pp 77-83.  
\*BISI 6635

Tests on the Reducibility of Iron Ores and Their Sinters, by H. P. Risso.  
PORTUGUESE, per, Met. ABM, Vol 23, 1967, pp 81-100.  
BISI 5964

Hot Cooling of Rolling Mill Rolls, by J. de Oliveira Ferraz.  
PORTUGUESE, per, Met. ABM, Vol 23, 1967, pp 269-279.  
\*BISI 6661



Scientific  
Materials (Contd)

Increasing the Service Life of Bogie Platforms and Ingot Moulds, by A. Chisu.  
RUMANIAN, per, Met Constr Masini, No 3, 1962, pp 193-199.  
BISI 5564

Higher Yield in Metallurgy Depends on Organization, by Traian Tecu, 5 pp.  
RUMANIAN, np, Scintila, 15 June 1968, pp 1, 3.  
JPRS 46040

Contribution to the Study of the Destruction by Cavitation of Some Steels Obtained by Alloying in the Electric Arc, by M. Hrelescu, A. Vas, 17 pp.  
RUMANIAN, per, Studii Si Cercetari De Metalurgie, Vol 10, No 2, 1965, pp 347-357.  
P100230468-V  
FTD-HT-23-969-67

Report Made on Progress of Ferrous Metallurgy Plan, by Mileva Stefanovic, 11 pp.  
SERBO-CROATIAN, per, Celik, No 12, Apr 1968, pp 12-15.  
JPRS 46,325

Investigation of the Deformation Resistance in Metals and Alloys, by G. Wallquist.  
SWEDISH, per, Jernkon Ann, Vol 135, No 6, 1951, pp 197-218.  
BISI 6030

The Organisation and Economy of Research, by K. E. Jakenberg.  
SWEDISH, per, Jernkon Ann, No 1, 1968, pp 9-18.  
\*BISI 6633

Compound With Structure Type  $W_6Fe_7$  in an Mo-Ni-Si System, by R. V. Skolosdra, Ye. I. Hladysheva'kyi, 2 pp.  
UKRAINIAN, per, Ukrayins'kyi Fizychnyy Zhurnal, Vol 11, No 2, 1966, pp 206-208  
P100206968-V  
FTD-HT-67-401

Scientific  
Mathematical Sciences

About a Correlation Perception Method, by V. A. Kovalevskiy, 14 pp.  
RUSSIAN, bk, AN UKRSSR. Chitayushchiye Avtomaty I Raspoznavaniye Obrazov, 1965, pp 46-61  
P100201368-V  
FTD-HT-23-504-67

On an Algorithm For Using Information Redundancy in Multidimensional Reproducing Systems, by P. F. Osmolovskiy, 5 pp.  
RUSSIAN, per, Doklady Akademii Nauk SSSR, Moscow, Vol 181, No 2, 1968, pp 301-304.  
JPRS 46510

Finite-Dimensional Irreducible Representations of the Unitary and Complete Linear Group and its Related Special Functions, by I. M. Gelfand, M. I. Grayev, 51 pp.  
RUSSIAN, per, Izv. Akad. Nauk SSSR, Ser. Mat., Vol 29, 1965, pp 1329-1356.  
AEC-LA-Tr-67-89 P911248868-V

Algorithm for Calculating Reduction in a Blooming Mill, by F. G. Patrunov.  
RUSSIAN, per, Izv VUZ Cher Met, No 1, Jan 1966, pp 122-127.  
\*BISI 6625

Statistical Model of Two-Zone Point Reactor Systems, by B. Kozik, Li Khon Seb, 9 pp.  
RUSSIAN, rpt, JINR-P2828, 1966.  
AEC-ANL-Tr-651 P911253168-V

The Principle of Increasing the Degree of Indeterminacy of Boolean Functions. An Algorithm for Determining the Shortest Disjunctive Normal Forms, by Y. N. Kornev.  
RUSSIAN, per, Kibernetika, No 4, 1967, pp 9-16.  
\*FTD-HT-24-333-68

Equilibrium of an Elastic Axisymmetrically Loaded Thick-Walled Cylinder, by V. K. Prokopov, 17 pp.  
RUSSIAN, per, Prikl. Math. Mekh, Vol 13, 1949, pp 135-144.  
AEC-UCRL-Tr-10256 P911255568-V

Scientific  
Mathematical Sciences (Contd)

Tactical Problem of the Redistribution of a Group of Fishing Vessels at Work, by S. G. D'yachkov, 6 pp.  
RUSSIAN, per, Rybnoye Khozaystvo, No 6, 1968, pp 79-81.  
JPRS 46274

A Mathematical Method for Determining Possible Variations of Arrangements of Fishing Vessels, by S. S. El'bert, 8 pp.  
RUSSIAN, per, Rybnoye Khozaystvo, No 6, 1968, pp 82-85.  
JPRS 46274

Mathematical Programming of Fishing Fleet Operations, by S. S. El'bert.  
RUSSIAN, per, Rybnoe Khoz. Vol 44, No 7, 1968, pp 78-80.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

Statistical Methods for Design of Extremal Experiments, by V. V. Nalimov, N. A. Chernova, 412 pp.  
RUSSIAN, bk, Statisticheskiye Metody Planirovaniya Ekstremal'nykh Eksperimentov. Nauka. Moscow, 1965, pp 1-340  
P100199668-V  
FTD-HT-23-660-67

Plotting Quasi-Conformal Reflections for Certain Gas Dynamics Problems, by G. S. Lipovoy, 6 pp.  
RUSSIAN, per, Ukrainskiy Matematicheskiy Zhurnal, Vol 17, No 1, 1965, pp 112-117  
P100205168-V  
FTD-HT-67-402

Numerical Solution of Hyperbolic Equations and Systems with two Independent Variables by a Method of the Runge-Kutta Type. I., by Nguyen Kong Tuy, 16 pp.  
RUSSIAN, per, Vestsi Akad. Nauk Belaruskay SSR, Ser. Fizika Math. Nauk, 1965, pp 110-120.  
RSTC-811 P200234768

Scientific  
Mathematical Sciences (Contd)

Scientific Information (All Union Conference on Computational Mathematics), by A. N. Tikhonov, N. S. Bakhvalov, 3 pp.  
RUSSIAN, per, Zhurnal Vychislitel'noy Matematiki i Matematicheskoy Fiziki, Vol 5, No 4, 1965, pp 779-780.  
P100219768  
FTD-HT-67-450

Assured Evaluations of System Reliability with Incomplete Information Concerning Reliability of Elements, by Yu. B. Germeyyer, D. S. Irger, 22 pp.  
RUSSIAN, per, Zhurnal Vychislitel'noy Matematiki i Matematicheskoy Fiziki, Vol 6, No 4, 1966, pp 733-747  
P100203168-V  
FTD-HT-67-463

Solution of Differential Equations Utilizing Curvilinear Difference Nets, by S. K. Godunov, G. P. Prokopov.  
RUSSIAN, per, Zhurnal Vychislitel'noy Matematiki i Matematicheskoy Fiziki, Vol 8, No 1, 1968, pp 28-46.  
\*FTD-HT-23-816-68

Convergence of Finite-Dimensional Approximations (in the Problem of Optimal Heating of a Nonhomogeneous, Arbitrary-Form Body), by V. I. Plotnikov.  
RUSSIAN, per, Zhurnal Vychislitel'noy Matematiki i Matematicheskoy Fiziki, Vol 8, No 1, 1968, pp 136-157.  
\*FTD-HT-23-816-68

Method for Simultaneous Summation of Binary Numbers, by V. I. Marayenkov, 2 pp.  
RUSSIAN, Patent 163812 (830850/26-24), Class 42m, 1403, p 1. P100208168  
FTD-HT-23-933-67

The Numerical Solution of One Class of Nonlinear Integral Equations of Dispersed Type, by I. Nedyalkov, G. Penchev, 9 pp.  
BULGARIAN, per, Bulgarska Akademiya Na Naukite. Fizicheski Institut. Izvestiya Na Fizicheskiya Institut S Aneg, Vol 12, No 1/2, 1964, pp 143-151.  
P100229568-V  
FTD-HT-23-911-67

Scientific  
Mathematical Sciences (Contd)

Comparison of Several Iterative Methods for Solving Eigenvalue Problems of Mathematical Physics Equations, by Hung-tz'u Huang. CHINESE, bk, Ch'iu Shu Hsueh wu li Fang Ch'eng t'e Cheng Chih Wen t'i ti Chi Chung Tieh tai fa pi Chiao, Peking, Chung-kuo k'o Hsueh Yuan Chi Shu Yen Chiu so, Oct 1963, 16 pp.  
\*FTD-HT-23-822-68C

The Dirichlet Problem of a System of Degenerating Elliptic Type Equations, by Ch'ing-Yu Chang, 13 pp. CHINESE, per, Shu Hsueh Hsueh Pao (Acta Mathematica Sinica), Vol 14, No 3, 1964, pp 379-386  
P100203468-V  
FTD-HT-67-338

Formulas for the Numerical Solution of  $y' = f(t, y)$ , Which Contains Higher Derivatives, by V. Jankovic, 15 pp. CZECH, per, Aplikace Matematiky, Vol 10 No 6, 1965, pp 469-482  
P100202668-V  
FTD-HT-23-755-67

The Squaring and Multiplying of Fourier Series, by W. Meyer Zur Capellen, 6 pp. GERMAN, per, Buletinul Institutului Politehnic - Din Iasi - Serie Noua, Vol 8, No 3/4, 1962, pp 19-24  
P100200768-V  
FTD-HT-23-731-67

Numerical Investigations into Methods of Criticality and Breeding Rates Calculation for Reactors with Cylinder Geometry and Partially Inserted Control Rods, by W. Schwetje, 33 pp. GERMAN, rpt, KFK 741, March 1968  
AEC-EURENR-502 P911249268-V

Introduction of Arithmetic Method of Calculating Measurements of Advers Discharge, by Juliusz Stachy, 3 pp. POLISH, per, Gospodarka wodna, No 2, 1963, p 87.  
GOSIL TT 67-56056

Scientific  
Mathematical Sciences (Contd)

Complete Logic Matrices. Their Use in Minimizing Boolean Expressions, by D. Damsker, 11 pp. RUMANIAN, per, Automatica Si Electronica, Vol 10, No 3, 1966, pp 97-102.  
P100230868-V  
FTD-HT-23-646-67

Mechanical, Industrial, Civil & Marine  
Engineering

Small Water-Cooled Non-Ballast Xenon Lamp, by M. C. Marshak. RUSSIAN, per, Source Unknown, pp 14-17.  
ACSI J-5049  
FTD-HT-23-205-68

Soviet Construction Schedules Shrinking, 6 pp. RUSSIAN, per, Agitator, No 14, 1968, pp 28-30.  
JPRS 46383

Problems of Planning, Construction of Tol'yatti, by B. Rubanenko, 28 pp. RUSSIAN, per, Arkhitektura SSSR, No 6, 1968, pp 1-13.  
JPRS 46299

On Postcritical Deformations of a Short Cylindrical Shell and Square Panel under Axial Compression, by V. V. Mykhaylov. RUSSIAN, per, AN UkrSSR. Dopovidi. Seriya A. Fizyko-Tekhnichni ta Matematychni Nauky, No 4, 1967, pp 350-353.  
\*FTD-HT-23-868-68C

Construction in the Southern Urals Praised, by G. Smirnov, 20 pp. RUSSIAN, per, Ekonomicheskaya Gazeta, No 22, May 1968, pp 23-26.  
JPRS 46182

Efficient Gas Pipeline Distribution Sought, by N. Mokrousov, Yu. Trubayev, 9 pp. RUSSIAN, per, Ekonomicheskaya Nauka, No 6, 1968, pp 56-61.  
JPRS 46380

Scientific  
Mechanical, Industrial, Civil & Marine  
Engineering (Contd)

Improving Rural Construction in Uzbekistan,  
by Kh. Nasyrov, 6 pp.  
RUSSIAN, per, Ekonomika i Zhizn', No 5, 1968,  
pp 60-63.  
JPRS 46383

Skilled Cadres Needed in Construction Industry,  
8 pp.  
RUSSIAN, per, Ekonomika Stroitel'stva, No 7,  
Jul 1968, pp 3-8.  
JPRS 46,355

Selecting the Relative Profile Thickness for  
Axial Compressor Blades, by V. V. Semov.  
RUSSIAN, per, Energomashinostroyeniye, No 9,  
1966, pp 6-8.  
\*FTD-MT-24-326-68

Development of Studies on Noise and Vibration  
in Railroad Transportation and Their Results,  
by A. M. Volkov.  
RUSSIAN, per, Gigiyena Truda i Professional'-  
nyye Zabolovaniya, No 11, 1967, pp 58-60.  
\*FTD-MT-24-358-68

A Refined Theory of NonHomogeneous  
Transversally Isotropic Plates of an  
Asymmetrical Structure, by  
S. G. Lekhnitskiy, 15 pp.  
RUSSIAN, per, AN SSSR, Izvestiya.  
Mekhanika, No 1, 1965, pp 81-88  
P100200168-V  
FTD-HT-67-58

Magnetic Systems Employing Steel for Magneto-  
hydrodynamic Generators, by O. B. Bul.  
RUSSIAN, per, Izvestiya VUZ Elektromekhanika,  
No 12, 1967, pp 1333-1340.  
ACSI J-4947  
FTC-HT-23-134-68

Correction of Twisted Turbine Blades, by  
I. G. Gogolev.  
RUSSIAN, per, IVUZ. Energetika, No 9, 1967,  
pp 62-67.  
\*FTD-HT-23-867-68C

Scientific  
Mechanical, Industrial, Civil & Marine  
Engineering (Contd)

Multifrequency Vibrator with Non-  
Circular Gear-Wheel Mechanism, by  
E. S. Makarov, 5 pp.  
RUSSIAN, per, Izvestiya Vysshikh  
Uchebnykh Zavedeniy.  
Mashinostroyeniye, No 8, 1965,  
pp 42-45.  
P100206768-V  
FTD-HT-67-202

Detection of Binding Centers on the Friction  
Surface of Machine Parts by Spectral Analysis,  
by B. I. Kostesskiy.  
RUSSIAN, per, IVUZ. Mashinostroyeniye, No 9,  
1967, pp 51-53.  
\*FTD-MT-24-327-68

Reasons for the Variation in the Vibration Level  
of Hydraulic Motors, by I. A. Baranov.  
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh  
Zavedeniy. Priborostroyeniye, Vol 10, No 5,  
pp 95-96.  
\*FTD-MT-24-341-68

Three-Level Ferrite-Transistor Logic Elements,  
by M. P. Troitskaya.  
RUSSIAN, per, IVUZ. Priborostroyeniye, Vol 10,  
No 7, 1967, pp 81-84.  
\*FTD-MT-24-335-68

The Use of Gas Refrigerating Machines to Cool  
Temperature Chambers, by L. I. Mak  
RUSSIAN, per, Kholodil'naya Tekhnika, No 9,  
1967, pp 30-33.  
\*FTD-HT-23-877-68C

Forging of Large Forged Pieces (Part II),  
by V. N. Trubina, V. A. Shelekhova, 40 pp.  
RUSSIAN, per, Kovka Krupnykh Pokovok, No 2,  
1965, pp 28-36; 260-288. P100221768-V  
FTD-HT-67-491

Reform Creates Problems in Equipment Repair,  
by Yu. S. Borisov, 15 pp.  
RUSSIAN, per, Mashinostroitel', No 5, 1968,  
pp 39-42.  
JPRS 46262

New Cutting Fluids, by M. I. Klushin.  
RUSSIAN, per, Mashinostroitel', No 11, 1967,  
pp 23-24.  
\*FTD-HT-23-829-68C

Scientific  
Mechanical, Industrial, Civil & Marine  
Engineering (Contd)

Influence of Cam Mechanism Parameters  
on Cam Profile Wear Under Conditions  
of Plastic Contact, by Ye. I. Vorob'yev  
11 pp.  
RUSSIAN, per, Mashinovedeniye, No 3,  
1965, pp 50-55  
P100166268-V  
FTD-HT-67-270

Production and Deliveries of Spare Parts, by  
I. Sukhodub, 5 pp.  
RUSSIAN, per, Material'no-Tekhnicheskoye  
Snabzheniye, June 1968, pp 85-87.  
JPRS 46189

Automatic Devices Accelerating Con-  
struction Rates, by A. A. Izmaylov,  
8 pp.  
RUSSIAN, per, Mekhanizatsiya  
Stroitel'stva, No 7, Moscow, 1968,  
pp 2-4.  
JPRS 46418

Flexibility in Production of Reinforce-  
ments, by V. V. Korolev, 6 pp.  
RUSSIAN, per, Mekhanizatsiya Stroitel'-  
stva, Moscow, No 7, 1968, pp 7-9.  
JPRS 46418

Construction Mechanization Under New  
System, by D. A. Baudel', S. K. Mekler,  
13 pp.  
RUSSIAN, per, Mekhanizatsiya Stroitel'-  
stva, Moscow, No 7, 1968, pp 24-27.  
JPRS 46418

Advances in Mechanization Marked in  
Construction, 10 pp.  
RUSSIAN, per, Mekhanizatsiya Stroitel'-  
stva, Moscow, No 8, 1968, pp 2-4.  
JPRS 46530

New Construction and Road Machinery  
Described, by A. Ye. Volkova, 7 pp.  
RUSSIAN, per, Mekhanizatsiya Stroitel'-  
stva, Moscow, No 8, 1968, pp 15-17.  
JPRS 46530

Scientific  
Mechanical, Industrial, Civil & Marine  
Engineering (Contd)

Structural Mechanics in the USSR after 50  
Years. Accomplishments and Promises, by  
B. G. Korenev.  
RUSSIAN, per, Moscow Stroitel'naya Mekhanika i  
Raschet Sooruzheniy, No 5, (53), 1967, pp 4-7.  
\*FTD-MT-24-356-68

Shortcomings in Kazakhstan Housing Construction,  
by V. Skopenkov, 7 pp.  
RUSSIAN, per, Narodnoye Khozyaystvo Kazakhstana,  
June 1968, pp 47-50.  
JPRS 46383

Petropavlovsk Construction Trust Improves Work,  
by V. Chopyy, 5 pp.  
RUSSIAN, per, Narodnoye Khozyaystvo Kazakhstana,  
June 1968, pp 51-53.  
JPRS 46383

Certain Problems in Mechanics of High Param-  
eters, by P. M. Ogibalov,  
RUSSIAN, bk, Nekotoryye Zadachi Mekhaniki  
Vysokikh Parametrov, 1966, 272 pp.  
\*FTD-MT-24-353-68

Fundamentals of the Planning of Aircraft-  
Industry Plants and Shops, by V. A. Tikhomirov,  
746 pp.  
RUSSIAN, per, Osnovy Proektirovaniya  
Samolostoitel'nykh Zavodov i Tselkhov,  
1965, pp 1-499. P100241668-V  
FTD-HT-67-001-89

Greater Efficiency Urged for Construction Industry,  
by I. Novikov.  
RUSSIAN, np, Pravda, 9 Aug 1968, p 2.  
JPRS 46383

A Study of Elastoplastic Deformation  
of Shells With Openings and Reinforce-  
ments by the Method of Photoelastic  
Coverings, by A. Ya. Aleksandrov,  
M. Kh. Akhmetzhanov, 9 pp.  
RUSSIAN, per, Prikladnaya Mekhanika,  
Vol 2, No 3, 1966, pp 1-9.  
P100228968-V  
FTD-HT-67-421

Scientific  
Mechanical, Industrial, Civil & Marine  
Engineering (Contd)

Elastic Equilibrium of an Isotropic Plane with  
a Doubly Periodic System of Inserts, by  
E. I. Grigolyuk.  
RUSSIAN, per, Prikladnaya Mekhanika, Vol 2, No  
9, 1966, pp 1-7.  
\*FTD-HT-23-827-68C

On the Stability of Elastic Systems in the Small  
and in the Large, by I. Ya. Amiro.  
RUSSIAN, per, Prikladnaya Mekhanika, Vol 2, No  
12, 1966, pp 33-40.  
\*FTD-HT-23-826-68C

On the Problem of Selecting the Optimum Struc-  
ture for Fiberglass-Reinforced Plastic in  
Thin Elastic Shells of Revolution,  
by A. V. Chigrinskiy.  
RUSSIAN, per, Prikladnaya Mekhanika, Vol 3,  
No 9, 1967, pp 130-134.  
\*FTD-HT-23-861-68

Calculation of Ballbearings Working Under Com-  
bined Loads, by M. A. Leykand, 40 pp.  
RUSSIAN, per, Prochnost' i Dinamika Aviat-  
sionnykh Dvigatelay. Sbornik Statey, No 3, 1966,  
pp 273-308. P100245268-V  
FTD-MT-24-334-67

Program of Physical Experiments on a 1000-GeV  
Cybernetic Proton Accelerator, by A. Dolgosheina,  
et al. 232 pp.  
RUSSIAN, bk, Programma Fizicheskikh Eksperi-  
mentov na Kiberneticheskom Uskoritele Protonov  
na Energiyu 1000 GEV, 1967.  
AEC-Tr-6936 P911252668-V

Precast-Concrete Sloping Roofs for Housing,  
by B. Danoyan, 5 pp.  
RUSSIAN, per, Promyshlennost' Armenii, No 6,  
1968, pp 48-50.  
JPRS 46407

Applications of Electrical Fishing Devices, by  
A. Ye. Fomichev, 6 pp.  
RUSSIAN, per, Rybnoye Khozyaystvo, No 8, 1967,  
pp 45-47.  
JPRS 46,342

Some Problems in Fish Industry Discussed, by  
P. M. Zaglubotskiy, 5 pp.  
RUSSIAN, per, Rybnoye Khozyaystvo, No 6, 1968,  
pp 2-3.  
JPRS 46268

Scientific  
Mechanical, Industrial, Civil & Marine  
Engineering (Contd)

Seine-Hauling Machine Designed by Kartenikov,  
by E. M. Studentsova.  
RUSSIAN, per, Rybnoe Khoz, Vol 44, No 7,  
1968, pp 31-33.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

Utilizing Structural Redundancy to Enhance the  
Reliability of Automata, by Ye. N. Turuta.  
RUSSIAN, rpt, Sb. Vychisl. Sistemy. Vyp. 25  
Novosibirsk, "Nauka", 1966, pp 19-30.  
\*FTD-HT-23-863-68C

Improvements Needed in Rural Construction,  
by S. Khitrov, 5 pp.  
RUSSIAN, np, Sel'skaya Zhizn', Moscow,  
11 August 1968, p 2.  
JPRS 46420

Lowering of Weight of Machine-  
Building Constructions (Chapter V  
and Selected Sections of Chapter IV)  
by V. N. Zhuravlev, 44 pp  
RUSSIAN, per, Snizheniye Vesa  
Mashinostroitel'nykh Konstruktsiy,  
1961, pp 181-239  
P100207668-V  
FTD-MT-24-196-67

Plans for Soviet Power Construction in 1971-1975,  
by Ya. Finogenov, 6 pp.  
RUSSIAN, np, Stroitel'naya Gazeta, 18 Aug 1968,  
p 2.  
JPRS 46379

Construction and Road Machinery Plans  
for Future, 6 pp.  
RUSSIAN, per, Stroitel'nyye i  
dorozhnyye mashiny, Moscow, No 7,  
1968, pp 1-2.  
JPRS 46418

Determining Dependencies Between  
Machine Parameters, by S. R. Golubovich,  
I. P. Kerov, 7 pp.  
RUSSIAN, per, Stroitel'nyye i  
Dorozhnyye Mashiny, Moscow, No 7,  
1968, pp 10-11.  
JPRS 46450

Scientific  
Mechanical, Industrial, Civil & Marine  
Engineering (Contd)

Road Machine Plants Save Labor and Material, by A. A. Andreyev, 6 pp.  
RUSSIAN, per, Stroitel'nyye i Dorozhnyye Mashiny, Moscow, No 7, 1968, pp 35-36.  
JPRS 46450

Shortcomings in Technical Control of Construction, by B. M. Kovyazin, 5 pp.  
RUSSIAN, per, Stroitel'stvo i Arkhitektura, No 7, 1968, pp 37-38.  
JPRS 46383

Railroads View Their Future Development, by Ye. Cherednichenko, 5 pp.  
RUSSIAN, np, Trud, 18 July 1968, p 2.  
JPRS 46380

Kinetics of Metal Failure during Cyclic Loading, by T. A. Lebedev.  
RUSSIAN, per, Trudy: Leningrad. Politekhnikeskii Institut. im. M. I. Kalina, Mashinostroyeniye, No 282, 1967, pp 33-42.  
\*FTD-MT-24-366-68

Cold Metalworking with Milling Cutters and Liquid-Metal Stamping, by S. Shirokov, 5 pp.  
RUSSIAN, per, Vnkh SSSR, Informatsionnyy Byulleten', No 11, 1966, pp 38-39  
P100194468  
FTD-HT-23-764-67

Construction, Renovation Goals Met in Moscow, by S. Ionov, 5 pp.  
RUSSIAN, np, Vechernyaya Moskva, Moscow, 9 August 1968, p 1.  
JPRS 46581

Machine-Tool Industry Lists Achievements, by A. I. Kostousov, 10 pp.  
RUSSIAN, per, Vestnik Mashinostroyeniya, No 5, 1968, pp 3-8.  
JPRS 46395

Better Repair Organization and Specialization Needed, by S. I. Semin, 8 pp.  
RUSSIAN, per, Vestnik Mashinostroyeniya, No 6, 1968, pp 3-6.  
JPRS 46262

Scientific  
Mechanical, Industrial, Civil & Marine  
Engineering (Contd)

Development of Hydroelectric Engineering Traced, by A. N. Zykov, 17 pp.  
RUSSIAN, per, Voprosy Istorii KPSS, July 1968, pp 84-92.  
JPRS 46276

The Use of Thermoelectric Generators, by G. A. Matveyev, L. M. Drabkin.  
RUSSIAN, per, Zheleznodorozhnyy Transport, No 12, 1967, pp 56-57.  
ACSI J-4846  
FSTC HT-23-133-68

Strengthening Railroad Frog Points by Explosion, by V. I. Vlasov.  
RUSSIAN, per, Zheleznodorozhnyy Transport, No 1, 1968, pp 64-66.  
\*FTD-MT-24-329-68

Container for Extrusion of Shapes With Large Widths, by L. D. Gol'man, L. Yu. Maksimov, 2 pp.  
RUSSIAN, rpt, Patent 164774  
(832363/25-8) Class 49h, 11, pp 1-2.  
P100228568-V  
FTD-HT-67-122

Apparatus for Measurement of Small Damping Moments in Wind-Tunnel Model Tests, by V. S. Bykov, B. A. Komashinskiy, 4 pp.  
RUSSIAN, rpt, Patent 128179  
(635484/25) Class 42k, 20, pp 1-4.  
P100228568-V  
FTD-HT-67-122

The Application of Ultrahigh Vacuums, by Chung-I Hua, 11 pp.  
CHINESE, per, K'o Hsueh Hua Pao, No 12, 1963, pp 445-448  
P100208468-V  
FTD-HT-67-214

Scientific  
Mechanical, Industrial, Civil & Marine  
Engineering (Contd)

Research and Development for Liquid Metal (Pb-Bi) Equipment at the Izbkg Research Institute for Power Plants, by F. Dubrak, 22 pp.  
CZECH, per, Jaderna Energie, No 7, 1965, pp 246-255  
P100199968-V  
FTD-HT-67-213

Blading Design of an Axial Compressor, by J. Sintak, 21 pp.  
CZECH, per, Strojirenstvi, Vol 15, No 3, 1965, pp 172-179.  
P100229468-V  
FTD-HT-67-384

French Repair Shop Trucks.  
FRENCH, rpt, IR 2832000266, 26 pp.  
ACSI J-4879  
FSTC HT-23-154-68

Signaling system for Railroad Vehicles.  
FRENCH, Patent No 857,797.  
Department of Commerce  
Patent Office

Projectile with an Explosive Charge, by Hotchkiss-Brandt, 7 pp.  
FRENCH, Patent No 1,341,656.  
Dept of Commerce  
Patent Office

The Hardening of Armor Plates by Means of Very Strong, Plane Shock Waves, Final Report, by H. G. Otto, C. Jessen, 31 pp.  
GERMAN, rpt, Franco-German Institute St. Louis  
France Technical Report 1724/64, 1964, 21 pp.  
ACSI J-5066  
FSTC HT-23-72-68

Electrification Necessitates Tunnel Widening, 10 pp.  
GERMAN, per, Geographische Berichte, Vol 13, No 2, 1968, pp 153-160.  
JPRS 46338

Scientific  
Mechanical, Industrial, Civil & Marine  
Engineering (Contd)

Selection and Training of Crane-Drivers and Drivers of Trackless Shop-Floor Transporters, by H. Becker, GERMAN, per, Industrie-Anzeiger, Vol 89, Aug 1967, pp 16-19  
BISI 6467

Freely Moving Transcontainer Transport and Handling Equipment Part 4: Portal Stackers, by G. Haussmann.  
GERMAN, per, International Forderung Und Heben, No. 1, 1968, pp 48-50.  
ACSI J-4892  
FSTC HT-23-58-68

Rating of Vehicle Engines According to Characteristic Data, by E. Schesk.  
GERMAN, per, Militartechnik, No 10, pp 449-452.  
ACSI J-4891  
FSTC HT-23-146-68

Resistance Welding IV and Micro-Fusion Methods.  
GERMAN, bk, Schweisstechnik, Vol 51, 1967, pp 1-180.  
ACSI J-5034  
FSTC-HT-23-113-62

A Look Across the Borders: Sweden Developed World's Most Modern Tank - Tank "S" Moves in Water Like a Fish and Entrenches Itself Like a Mole.  
GERMAN, per, Der Schweizer Soldat, No 8, 1967, p 186.  
ACSI J-4877  
FSTC HT-23-152-68

Ship Speed Measured Electrodynamically, by A. Stimper, 8 pp.  
GERMAN, per, Schiffbautechnik, May 1968, pp 261-264.  
JPRS 46040

Engineer Provides Pioneer Freightier Series Details, by H. Petri, 14 pp.  
GERMAN, per, Schiffbautechnik, East Berlin, No 7, July 1968, pp 377-381.  
JPRS 46514

Fourth Quarter 1967 Ship Completions, 5 pp.  
GERMAN, per, Seeverkehr, Apr 1968, pp 143-144.  
JPRS 45685



Scientific  
Mechanical, Industrial, Civil & Marine  
Engineering (Contd)

New Major Ships Built During January-March 1968,  
by Gerhard Salweit, 5 pp.  
GERMAN, per, Seeverkehr, Vol 8, No 8, Aug 1968,  
pp 349-350.  
JPRS 46393

Natural Gas Production in Algyo Seen Possible,  
by Zoltan Gombos, 8 pp.  
HUNGARIAN, per, Koolaj es Foldgaz, No 6,  
Jun 1968, pp 171-174.  
JPRS 46,348

Danubian Petroleum Industry Enterprise Described,  
by Pal Simon, Laszlo Haga, 17 pp.  
HUNGARIAN, per, Koolaj es Foldgaz, No 6,  
Jun 1968, pp 181-187.  
JPRS 46,348

Layout of New Petroleum Refinery Described,  
by Pal Simon, Laszlo Haga, 29 pp.  
HUNGARIAN, per, Magyar Kemikusok Lapja, No 6,  
1968, pp 323-325.  
JPRS 46,354

Designing of River Bed Cross Sections Taking  
Into Account Bed Load Transportation, by  
Boleslaw Kordas, 8 pp.  
POLISH, per, Gospodarka Wodna, Vol 23, No 10,  
1963, pp 383-385.  
CPSTI TT 67-56044

Serbian Trunk Line Center Being Modernized, by  
Predrag Danicic, 14 pp.  
SERBO-CROATIAN, per, Isgradnja, No.7, July 1968,  
pp 14-21.  
JPRS 46338

World, Yugoslav Shipping Traffic, Tonnage Forecast  
by Ignac Rubinic, 21 pp.  
SERBO-CROATIAN, per, Glasnik, Nos 3-4, Mar-Apr  
1968, pp 74-78.  
JPRS 46338

Highway Network Development in 1967, by  
Vasilije Dragovic, 6 pp.  
SERBO-CROATIAN, per, Transport, Apr 1968,  
pp 31-34.  
JPRS 45685

Study on Passenger Transportation Trends, by  
Nikola Cvijic, Tihomir Pavlovic, 24 pp.  
SERBO-CROATIAN, per, Zelesnice, 7 July 1968,  
pp 43-50.  
JPRS 46338

Scientific  
Mechanical, Industrial, Civil & Marine  
Engineering (Contd)

Newest Yugoslav Sleeping Car Described, by  
Randjel Bogdanovic, 6 pp.  
SERBO-CROATIAN, per, Zelesnice, No 7, Jul 1968,  
pp 55-58.  
JPRS 46,325

New Port Facilities at Asium Described, by  
Ramiro Santamaria, 6 pp.  
SPANISH, per, Africa, July 1968, pp 327-330.  
JPRS 46392

Work Begins on Guane-Havana Superhighway,  
by Fernando G. Davalos, 6 pp.  
SPANISH, np, Granma, 16 July 1968, p 2.  
JPRS 46340

Equipment Management in Textile  
Industry Described, by Nguyen Huong,  
5 pp.  
VIETNAMESE, per, Ky Thuat Cong Nghiep  
Nhe, Hanoi, No 2, 1968, pp 13-15.  
JPRS 46436

Flood Control Guidelines Assure Success, by  
La Ke Tan, 5 pp.  
VIETNAMESE, np, Nhan-dan, 18 June 1968, p 2.  
JPRS 46199

Methods & Equipment

Estimate of the Reliability of Schemes with  
Permanent Redundancy under Consideration of  
the Possibility of a Departure of the System  
Parameter Beyond the Tolerance Limits, by  
A. M. Margulis, 16 pp.  
RUSSIAN, per, Ap. LATSR. Institut Elektroniki  
i Vychislitel'noy Tekhniki Avtomatika i  
Vychislitel'naya Tekhnika, No 11, 1965,  
pp 199-214.  
P100218268-V  
FTD-HT-23-998-67

Scientific  
Methods & Equipment (Contd)

High-Speed Photography With a Rate  
Up to 40,000 Frames Per Second, by  
A. N. Berezkin, M. K. Berezkina, 6 pp.  
RUSSIAN, bk, AN SSSR, Fiziko-  
Tekhnicheskiy Institut. Aerofizicheskiye  
Issledovaniya Sverkhzvukovykh Tesheniy,  
1967, pp 227-233.  
P100231168-V  
FTD-MT-24-370-67

Physical Principles and Technical Means of Aerial  
Surveying, by A. I. Vinogradova.  
RUSSIAN, mono, Ak Nauk SSSR, Fizicheskoye Osnovy  
i Tekhnicheskoye Sredstva Aerometodov, Leningrad,  
1967, pp 72-147.  
\*FTD-MT-24-316-68

Method for Evaluating the Numerical Parameters of  
Structures, by Yu. P. Zaychenko.  
RUSSIAN, per, Avtomatyka, No 6, 1967, pp 23-27.  
\*FTD-HT-23-823-68C

Thermoanemometer, by V. V. Bass, I. S. Melamed,  
2 pp.  
RUSSIAN, Patent 172141 (904989/26-10), Class  
42o, 15, pp 1-2. P100221368-V  
FTD-HT-23-1121-67

Development of a New Method for Determining the  
Wear Resistance of Rubbers, by V. N. Feoktistov  
RUSSIAN, rpt, Nauchno-Issled. Tr. Vses. n.-i.  
in-t Plenochn. Materialov i Iskusstv. Kozhi.  
Sb. No 17, 1966, pp 16-19.  
\*FTD-HT-23-882-68C

Engineering Method for Thermodynamic Calcula-  
tions of Jet-Type Combustion Chambers Using  
Hydrocarbon Fuel and Air, by I. P. Goldayev.  
RUSSIAN, per, Samoletostroyeniye i Tekhnika  
Vozdushnogo Flota, No 10, 1967, pp 14-19.  
\*FTD-HT-23-842-68

Automatic Monitoring Systems for Velocity and  
Flowrate Fields, by G. P. Katys, 445 pp.  
RUSSIAN, per, Sistemy Avtomaticheskogo  
Kontrolya Poley Skorostey i Raschodov, 1965,  
pp 1-464. P100240068-V  
FTD-HT-23-615-67

Scientific  
Methods & Equipment (Contd)

Electric Radiometer-Device for Determining the  
Heat of Radiant Energy, by A. A. Vnukov, 6 pp.  
RUSSIAN, per, Teploenergetika, Vol 15, No 8,  
1968.  
Dept of Commerce  
Nat Bureau of Standards

On the Question of Reliability of  
Standby Schemes With Constant  
Connection of Extra Units, by  
A. M. Margulis, 8 pp.  
RUSSIAN, per, Trudy. AN LATSSR.  
Institut Elektroniki i Vychislitel'noy  
Tekhniki, No 9, 1965, pp 189-197.  
P100228268-V  
FTD-HT-23-560-67

Shutters for Aerial Photographic Equipment,  
by N. P. Zakaznov, 93 pp.  
RUSSIAN, bk, Zatvory Aerofotoapparatov, 1965,  
pp 1-86. P100249968-V  
FTD-MT-24-294-67

XVII Conference on Scientific Photography, by  
Yu. N. Gorokhovskiy, 5 pp.  
RUSSIAN, per, Zhurnal Nauchnoy i Prikladnoy  
Fotografii i Kinematografii, Vol 10, No 6,  
1965, pp 469-471. P100227968  
FTD-HT-67-442

A Photoelectric Device for Automatic Focusing  
of Lenses, by B. N. Motenko, I. Sh. Yetsin,  
3 pp.  
RUSSIAN, Patent 172,183. P100228568-V  
FTD-HT-67-122

Method of Testing Materials for  
Cavitational Wear, by S. P. Kozayrev,  
1 p.  
RUSSIAN, rpt, Patent 183460  
(1011062/25-28) Class 42k, 40, p 1.  
P100218968  
FTD-HT-23-909-67

The Principle of Affine Transformation for  
Rectifying Aerial Photographs and Its Appli-  
cation, by Weisen Ching  
CHINESE, per, Acta Geodetica et Cartographica  
Sinica, Vol 9, No 1, Feb 1966, pp 27-43.  
\*AFCHL

Scientific  
Methods & Equipment (Contd)

An Automatic Recording Device for Use with the Stereo-Comparator, by De-kuan Wang  
CHINESE, per, Acta Geodetica et Cartographica Sinica, Vol 9, No 2, May 1966, pp 144-150.  
\*AFCL

Operation and Costs of an Ion-Exchanging Recirculation System for Treating the Wash Water of a Pickling Plant in the Rolling Mill  
by L. Plumer  
GERMAN, per, Bänder Bleche, Vol 9, Mar 1968, pp 137-139  
BISI 6391

SPBIV Speed Recorders, by B. Mierkowski  
POLISH, per, Technika Lotnicza i Astronautyczna, No 6, 1967, pp 29-31.  
\*FTD-HT-23-866-68C

Practical Application of the Fluorometric Method for Discharge Measurements, by Stanislaw Nowinski, Szpindor, 11 pp.  
POLISH, per, Wiadomosci Meteorologiczne i Lekarskie, Vol 6, No 6, 1964, pp 155-159.  
\*FTD-HT 67-56051

Missile Technology

Underwater Salvo, by V. Gubarev, I. Gricher, 5 pp.  
RUSSIAN, per, Komsomol'skaya Pravda, No 31, 1967, p 4. P100240468-V  
FTD-HT-23-817-67

Soviet Rocket Forces, by P. T. Astashenkov, 256 pp.  
RUSSIAN, bk, Sovetskoye Rakotnavye Vozyska, 1967, pp 1-344. P100245868-V  
FTD-MT-24-20-68

Command Radio Links of Rocket Control Systems, by A. M. Zhakov, F. A. Pigulevskiy, 29 pp.  
RUSSIAN, bk, Upravleniye Ballisticheskimi Raketaimi, 1965, pp 211-278. P100245368-V  
\*FTD-MT-24-352-67

Scientific  
Missile Technology (Contd)

Surface to Air Antiaircraft Guided Missiles, by M. Dostalik, 8 pp.  
CZECH, per, Vojenska Technika, No 7, 1965, pp 17-20.  
P100217568-V  
FTD-HT-23-728-67

Navigation, Communications, Detection & Countermeasures

On the Nature of Resonance Phenomena in Radio-Wave Scattering on Meteor-Trail Models, by I. V. Bayrachenko, 5 pp.  
RUSSIAN, per, AN UKRSSR. Mezhdovedomstvennyy Geofizicheskiy Komitet. Informatsionnyy Byulleten', Geofizika i Astronomiya, No 9, 1966, pp 153-156. P100222068-V  
FTD-HT-23-997-67

Antennas and Radio-Wave Propagation by Ye. M. Vereshchagin, 216 pp  
RUSSIAN, bk, Antenny i Rasprostraneniye Radiovoln, 1964, pp 1-238  
P100163968-V  
FTD-MT-66-51

Improving Radio-Relay Communications, by I. Lenskaya, 7 pp.  
RUSSIAN, per, Avtomatika, Telemekhanika i Svyaz', No 4, 1968, pp 41-43.  
JPRS 46297

Rail Transport Radio Communications Developments, by A. A. Tantsyura, S. A. Neyman, 14 pp.  
RUSSIAN, per, Avtomatika Telemekhanika i Svyaz', No 5, 1968, pp 1-6.  
JPRS 46297

Interference Control, by A. A. Kharkevich, 222 pp.  
RUSSIAN, bk, Bor'ba s Pomekhami, 1965, pp 1-275. P100224068-V  
FTD-MT-24-251-67

Scientific  
Navigation, Communications, Detection &  
Countermeasures (Contd)

Formation of a Radiation Pattern of  
Radio Interferometers by the Frequency  
Multiplication Method, by  
A. E. Balklav, 13 pp  
RUSSIAN, per, AN LATSSR. Izvestiya.  
Seriya Fizicheskikh i Tekhnicheskikh  
Nauk, No 1, 1966, pp 60-70  
P100203068-V  
FTD-HT-67-495

Optimum System of Signal Detection with Noise  
Modulation in the Presence of Incoherent Recep-  
tion, by N. M. Malyarevskiy, 12 pp.  
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh  
Zavedeniy, Radioelektronika, Vol 10, No 4,  
1967, pp 335-343. P100243068-V  
FTD-MT-24-376-67

Propagation of Centimeter, Millimeter and Sub-  
millimeter Radio Waves in the Earth's Atmosphere,  
by S. A. Zhevakin, A. P. Naumov, 35 pp.  
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh  
Zavedeniy, Radiofizika, Vol 10, Nos 9-10, 1967,  
pp 1213-1243.  
JPRS 46,311

Innovations in Training Radio Operations,  
by N. Vasil'ev, 5 pp.  
RUSSIAN, op, Krasnaya Zvezda, 31 May 1968,  
p 2.  
JPRS 45858

The Influence of the Sphericity of the Earth on  
VLF Radiowave Propagation, by F. Ye. Krasnushkin,  
9 pp.  
RUSSIAN, per, Radiotekhnika i Elektronika, No 2,  
1968, pp 340-344.  
JPRS 46273

Aerospace Vehicle Navigation Systems, by  
V. P. Selaznev, M. A. Kirs, 134 pp.  
RUSSIAN, bk, Sistemy Navigatsii Kosmicheskikh  
Letatel'nykh Apparatov, 1965, pp 1-208.  
P100221268-V  
FTD-MT-24-146-67

Theory of Traffic Control for Space  
Vehicles (Chapters IV and VI), by  
V. M. Ponomarev, 58 pp  
RUSSIAN, bk, Teoriya Upravleniya  
Dvizheniyem Kosmicheskikh Apparatov,  
1965, pp 177-318  
P100165068-V  
FTD-MT-24-369-67

Scientific  
Navigation, Communications, Detection &  
Countermeasures (Contd)

Concerning the Reliability of Infor-  
mation From Networks of Remote  
Systems Having Dispersed Units, by  
B. O. Kasimov, 16 pp  
RUSSIAN, per, Trudy. An AZERBSSR  
Vychislitel'nyy Tsentr. Vopro-y  
Vychislitel'noy Matematiki i  
Vychislitel'noy Tekhniki, Vol 3  
1965, pp 33-47  
P100163868-V  
FTD-MT-24-389-67

Investigation of the Possibility of Balancing  
Gyroscope Rotors at Operating Speeds, by  
T. P. Kozlyaninov, 32 pp.  
RUSSIAN, rpt, Uravnoveshivaniye Mashin i Priborov,  
1965, pp 257-289. P100243468-V  
FTD-MT-24-365-67

Herald of Communications, 79 pp.  
RUSSIAN, per, Vestnik svyazi, May 1968, No 5,  
pp 1-32.  
JPRS 46,093

Herald of Communications  
RUSSIAN, per, Vestnik svyazi, Vol XXVIII, No 7,  
July 1968, pp 1-27.  
JPRS 46,470

Method of Analysis of Dispersion Distortions  
of a Short Pulse in the Ionosphere, by  
S. S. Bek, 9 pp.  
RUSSIAN, per, Vsesoyuznaya Nauchnaya Sessiya,  
Posvyashchennaya Dnyu Radio. 22nd, Moscow.  
Sektsiya Teorii i Tekhniki Peredachi Diskretnykh  
Signalov, 1966, pp 44-52. P100245568-V  
FTD-MT-24-223-67

A Method of Lowering the Noiseproofness  
Threshold of Broad-Band Frequency-  
Modulation and Phase-Modulation  
Receivers, by L. Ya. Kantor,  
V. L. Bykov, 3 pp.  
RUSSIAN, rpt, Patent 175089  
(825111/26-9) Class 21a<sup>1</sup>, 2202,  
pp 1-2.  
P100228568-V  
FTD-HT-67-122

Scientific  
Navigations, Communications, Detection &  
Countermeasures (Contd)

Device for Automatic Retuning of the Path of Selection of a Radio-Receiving or Radio-Transmitting Apparatus, by O. V. Sidorenko, 2 pp.  
RUSSIAN, rpt, Patent 170558 (799708/26-9) Class 21a4, 70, pp 1-2  
P100188368  
FTD-HT-66-677

A Method of Measuring the Spectrum of Field Space Harmonics of Circular Delay Structures, by M. E. Averbukh, 4 pp.  
RUSSIAN, rpt, Patent 171233 (908822/26-9) Class 21a4, 71, pp 1-2.  
P100228568-V  
FTD-HT-67-122

Telecommunications Deficiencies Enumerated, by Adolf Karbula, 9 pp.  
CZECH, per, Ceskoslovenske Spoje, Prague, Vol 13, No 3, June 1968, pp 4-6.  
JPRS 46514

Comparison of the Secam Color Television System With a Quadrature Modulation System (NTSC) With Overall Picture Quality as Criterion, by J. Pazderak, 13 pp.  
CZECH, per, Slaboproudy Obzor, Vol 26, No 3, 1965, pp 144-149.  
P100230568-V  
FTD-HT-67-383

Telephone System Enters First Automation Phase, by Josef Ptacek, 8 pp.  
CZECH, np, Telekomunikace, May 1968, pp 1-3.  
JPRS 46,325

Radio-Range Beacon Bomb Sight, by M. Otto, 3 pp.  
GERMAN, rpt, National Zeitung (GDR), p 6.  
P100227068  
FTD-HT-23-980-67

Scientific  
Navigation, Communications, Detection &  
Countermeasures (Contd)

Formation of Turbulent Wakes Behind Inlet Guide Vanes, by J. Elsner.  
POLISH, per, Lodz. Politechnika. Katedra Ciepnych Maszyn Przeplywowych, Ciepne Maszyny Przeplywowe, No 63/64, 1967. Symposium Sprzarkowy, Lodz. 16-18, XI, 1967; Referaty, Przyczynki, Komunikaty, No 1, pp 213-220.  
\*FTD-HT-23-870-68C

Statute Drafted for Yugoslav Radio Amateurs, 14 pp.  
SERBO-CROATIAN, per, Radioamater, Jul-Aug 1968, pp 240-241.  
JPRS 46,325

Nuclear Sciences & Technology

Instrument-Making Institute Research Described, by N. A. Shekhovtsov, V. V. Matveyev, 6 pp.  
RUSSIAN, per, Atomnaya Energiya, Nov 1967, pp 446-450.  
JPRS 46400

Twenty-Fifth Anniversary of the Moscow Engineering and Physics Institute, by V. G. Kirillov-Ugryumov, Yu. A. Bykovskiy, 7 pp.  
RUSSIAN, per, Atomnaya Energiya, Nov 1967, pp 451-456.  
JPRS 46400

Measurement of the Radiative Capture and Fission cross Section Ratios for U<sup>235</sup> and Pu<sup>239</sup> in the Resonance-Neutron Energy Region, by Yu. V. Ryabov, 8 pp.  
RUSSIAN, per, At. Energy, Vol 24, No 4, 1968, pp 351-362. P911252968-V  
AEC-BNL-Tr-219

Investigation of the Ionization and Discharge of Metal Ions by Means of Radioactive Indicators, by V. V. Losyev, 7 pp.  
RUSSIAN, per, Dokl. Akad. Nauk SSSR, Vol 100, 1955, pp 111-114.  
AEC-UCRL-Tr-1376

Radiation Damage in Diamond, by V. A. Nikolaenko, 24pp.  
RUSSIAN, rpt, IAE-1094, 1966. P911034168  
AEC-LB-G-2582

Scientific  
Nuclear Science & Technology (Contd)

Direct and Inverse Photonuclear Reactions on  $N^{15}$  and  $O^{15}$  Nuclei, by L. A. Zhusupov and K. A. Yeranzhyan, 12 pp.  
RUSSIAN, rpt, JINR-P4-3674, 1968.  
AEC-BNL-Tr-218 P911253068-V

Principles of Automatic Control Increase Accelerator Energy, by A. L. Mints, 14 pp.  
RUSSIAN, per, Priroda, Apr 1968, pp 8-15.  
JPRS 46039

Radiation Polymerization of Hexafluoropropylene, by A. I. Skobina.  
RUSSIAN, bk, Radiats. Khim Polim. Mater.  
Simp., Moscow, 1964, pp 126-128.  
\*FTD-HT-23-851-68C

Deformation of the Spectrum of Fast Neutrons in Concrete and Water, by Yu. A. Yegorov, 3 pp.  
RUSSIAN, rpt, Voprosy Fiziki Zashchity Reaktorov.  
Sbornik Statey, Gosatomizdat, Moscow, 1963,  
pp 190-192. P100242368-V  
FTD-HT-24-257-67

Experimental Study of the Propagation of Slow Neutrons Close to the Source in the Unbounded Atmosphere, by S. F. Dogtyarev, V. I. Tarasov, 5 pp.  
RUSSIAN, per, Voprosy Fiziki Zashchity Reaktorov.  
Sbornik Statey, No 2, 1966, pp 206-209.  
P100244568-V  
FTD-HT-24-354-67

Problems of Radiation Safety in the Storage and Transport of Radioactive Isotopes, by A. V. Terman, 146 pp  
RUSSIAN, bk, Voprosy Radiatsionnoy Bezopasnosti Pri Khranении i Perevozke Radioaktivnykh Isotopov  
1964, pp 1-135  
P100164668-V  
FTD-HT-67-155

The Separation of Stable Isotopes, by Wang Chon, 31 pp.  
CHINESE, per, Hua Hsueh Tung Pao, No 8, 1963,  
pp 458-468. P911255968-V  
AEC-K-tr-38

Scientific  
Nuclear Science & Technology (Contd)

Phenix, by H. Rozenholz, 28 pp.  
FRENCH, per, Energie Nucleaire, Vol 10, No 2, 1968,  
pp 65-75. P911255663-V  
AEC-Tr-6948

The Nuclear Propulsion Plant for the OTR Kahn, by R. Schmeler, T. Weisbrodt, 37 pp.  
GERMAN, Source Unknown. 500189768-V  
Dept of Navy R10 tr 2616

The Development of Fuel Elements for Fast Breeder Reactors, by H. Weisswenger et al. 423 pp.  
GERMAN, rpt, KFK-700, Dec. 1967.  
AEC-EURFME-472 P911252868-V

Transmission of Fast Electrons Through Thick Layers of Matter, by Dietrich Harder, 145 pp.  
GERMAN, thesis, Presented to Faculty of Natural Sciences of Julius-Maximilian Univ. of Wurzburg, 1965 P911255768-V  
AEC-AHL-Tr-608

Methods and Means for Measuring Radiation Dosage, by Arthur Leipniker, 5 pp.  
HUNGARIAN, np, Polgari Vedelem, Budapest, 29 June 1968, pp 2-3, Supplement.  
JPRS 46445

Basic Research on Gaseous Diffusion Separations, by Kunio Higashi, 152 pp.  
JAPANESE, Thesis, Dept. Nucl. Energy, Kyoto University, Kyoto Japan, Nov. 1966.  
AEC-K-Tr-37 P9112489-68-V

Study on the Intergration of a Marine Reactor Plant, by Yoshihisa Tanaka, 17 pp.  
JAPANESE, rpt, Japan Atom. Energy Research Instit., Feb. 1968. P911255068-V  
AEC-NSJ-tr-105

Studies for Safety Analysis of Loss-of-Coolant Accidents in Light-Water Power Reactors, by Hideo Fujie, Atsuo Yamanouchi et al., 21 pp.  
JAPANESE, rpt, Japan Atomic Energy Research Instit., March 1968.  
AEC-NSJ-tr-112 P911255168-V

Advanced Thermal Reactors and Fuel Cycle, by Hiroji Mochizuki, Ryokichi Tanaka, 13 pp.  
JAPANESE, rpt, Japan Atomic Energy Research Instit., May 1968. P911255268-V  
AEC-NSJ-tr-114

Scientific  
Nuclear Sciences & Technology (Contd)

Testing for Radioactive Contamination  
Regulated, 6 pp.  
SERBO-CROATIAN, per, Sluzbeni list  
SFRJ, Belgrade, 31 July 1968,  
pp 640-642.  
JPRS 46421

Activities at the Lop Nor Nuclear Base Cease,  
no author.  
TAIWAN, np, Chen Hsin Hsin Wen Pao, No 6388,  
8 Apr 1968, p 1.  
\*FTD-HT-23-846-68C

Physics

Optical Properties of Thick Layers of a Uniform  
Dispersing Medium, by G. V. Rozenberg, 34 pp.  
RUSSIAN, rpt, AN BSSR. Institut Fiziki. Spektro-  
skopiye Svetorasseivayushchikh Sred, 1963,  
pp 5-36. P100243268-V  
FTD-MT-24-310-67

Calculation of the Debye Temperature for  
Crystals of Arbitrary Symmetry, by B. G.  
Bystrova.  
RUSSIAN, per, AN BSSR. Vestsi. Seryya Fizika-  
Matematichnykh Navuk, No 1, 1967, pp 104-110.  
\*FTD-HT-23-373-68C

Symmetrical Loading of an Infinite  
Plate Weakened by Three Circular  
Holes, by M. Z. Narodetskiy, 11 pp.  
RUSSIAN, per, AN GRUZSSR.  
Soobshcheniya, Vol 40, No 2, 1965,  
pp 295-302  
P100205968-V  
FTD-HT-67-78

Kinetics of the Photoluminescence of Crystal  
Phosphors, by V. V. Antonov-Romanovskiy, 418 pp.  
RUSSIAN, per, AN SSSR. Fizicheskiy Institut,  
1966, pp 1-324. P100239960-V  
FTD-HT-67-004-92

Scientific  
Physics (Contd)

Electrical Protection of Closed Solenoid,  
by P. Ya. Burchenko, Ye. D. Volkov,  
5 pp.  
RUSSIAN, bk, AN SSSR. Fiziko-  
Tekhnicheskii Institut. Khar'kov,  
1966, pp 1-6  
P100200968-V  
FTD-MT-67-85

Radial Diffusion of Electrons With Energy  
Greater than 100 Kev in the Outer Radiation  
Belt, by S. N. Vernov, S. N. Kuznetsov.  
RUSSIAN, per, Akademiya Nauk SSSR, Geomagnetizm  
i Aeronomiya, Vol 7, No 3, 1968, pp 401-411.  
P910226068-V  
Sci Tech Info Facility  
ST-PF-10732

Aerodynamic Characteristics of a One-Chamber  
Plasmatron with Vortex Gas Stabilization and  
Its Effect on Arc Behavior, by A. D. Lebedev.  
RUSSIAN, per, AN SSSR. Sib. Otd. Izv. Ser  
Tekhn n, No 1, 1967, pp 53-59.  
\*FTD-MT-24-318-63

Oscillations and Heating Of Small Plasma Clusters,  
Impinging on an Axially-Symmetrical Magnetic Field,  
by N. A. Khizhnyak, A. A. Vodyanitskiy.  
RUSSIAN, per, AN UKRSSR. Fiziko-Tekhnicheskii Isnt.  
Doklady, No 114, 1964, pp 1-9. P100253868-V  
FTD-HT-23-661-67

General Boundary-Value Problems for Parabolic  
Systems with Increasing Coefficients, by  
V. F. Lavrenchuk.  
RUSSIAN, per, AN UKRSSR. Dopovidi. Seriya A.  
Fiziko-Tekhnichni ta Matematichni Nauky, No 3,  
1968, pp 238-243.  
\*FTD-HT-23-807-68C

The Kinetics of Recrystallization  
in Highly Deformed Monocrystals of  
Nickel and Niobium, by L. N. Larikov,  
Ye. E. Zaslomchuk, 9 pp.  
RUSSIAN, bk, AN UKRSSR. "Fazovyye  
Prevrashcheniya v Metallah i  
Splavakh", 1965, pp 118-126.  
P100230168-V  
FTD-HT-23-520-67

Scientific  
Physics (Contd)

Certain Problems of Physics of Thin Films,  
by M. G. Nakhodkin, 24 pp.  
RUSSIAN, per, An UKRSSR. Fizika  
Metallicheskikh Plenok, 1965, pp 4-39.  
P100244368-V  
FTD-HT-24-261-67

Cavitation and Certain Problems in  
Hydrodynamics, by V. M. Ivchenko,  
12 pp.  
RUSSIAN, bk, AN UKRSSR. Issledovaniya  
Po Prikladnoy Gidrodinamike, 1965,  
pp 70-77.  
P100228468-V  
FTD-HT-23-586-67

On the Problem of Plasma Acceleration in  
Crossed Fields, by N. A. Khizhnyak, 11 pp.  
RUSSIAN, per, An UKRSSR. Issledovaniya  
Plazmennykh Sgustkov. Naukovo Dumka, 1965,  
pp 137-148. P100241068-V  
FTD-HT-23-819-67

Interaction of Modulated Flux With Plasma, by  
Ya. B. Faynberg, V. D. Shapiro, 11 pp.  
RUSSIAN, per, An UKRSSR. Vzaimodeystviye  
Puchkov Zaryazhenykh Chastits s Plazmoy,  
1965, pp 143-155. P100244168-V  
FTD-HT-24-249-67

Excitation of Magnetosonic Waves in Colliding  
Plasma Fluxes, by D. G. Lominadze,  
K. N. Stepanov, 4 pp.  
RUSSIAN, per, An UKRSSR. Vzaimodeystviye  
Puchkov Zaryazhenykh Chastits s Plazmoy,  
1965, pp 177-181. P100244168-V  
FTD-HT-24-249-67

Longitudinal Oscillations in Multivelocity  
Plasma Beam, by N. S. Repalov, N. A. Khizhnyak,  
8 pp.  
RUSSIAN, per, An UKRSSR. Vzaimodeystviye  
Puchkov Zaryazhenykh Chastits s Plazmoy,  
1965, pp 186-195. P100244168-V  
FTD-HT-24-249-67

Instability of Plasma Discharge With Oscillating  
Electrons, by O. S. Pavlichenko, L. A. Dushin,  
12 pp.  
RUSSIAN, per, An UKRSSR. Vzaimodeystviye  
Puchkov Zaryazhenykh Chastits s Plazmoy,  
1965, pp 204-216. P100244168-V  
FTD-HT-24-249-67

Scientific  
Physics (Contd)

Calculation of Loss of Total Pressure in  
Diffuser Channels, by A. Sh. Dorfman, 6 pp.  
RUSSIAN, per, Energomashinostroyeniye, No 6,  
1966, pp 29-31.  
P100217968-V  
FTD-HT-23-1052-67

Strength and Plasticity of weld Joints Operating  
in Contact with Liquid Lithium, by  
Ya. K. Bebkovich, V. F. Shatinskiy, 18 pp.  
RUSSIAN, per, Fiziko-Khimicheskaya Mekhanika  
Materialov, Vol 4, No 1, 1968, pp 3-21.  
JPRS 46254

Approximate Calculation of Non-Steady-State  
Fusion of Vitreous Materials, by  
S. K. Matveyev, 8 pp.  
RUSSIAN, per, Inzhenerno-Fizicheskiy Zhurnal,  
Vol 11, No 6, 1966, pp 730-736. P100240768-V  
FTD-HT-23-791-67

An Electrical Analog for Nonstationary Heat  
Exchange in a Dispersed System, by N. V.  
Antonishin.  
RUSSIAN, per, Inzhenerno-Fizicheskiy Zhurnal,  
Vol 12, No 5, 1967, pp 592-598.  
\*FTD-HT-23-857-68

Ignition and Self-Ignition of Reactive Sub-  
stances under Ideal Thermal Contact Conditions,  
by A. M. Grishin.  
RUSSIAN, per, Inzhenerno-Fizicheskiy Zhurnal,  
Vol 13, No 3, 1967, pp 345-352.  
ACSI J-5068  
FTD-HT-23-139-68

The Length of a Supersonic Ejector Mixing  
Chamber with a Zero Ejection Coefficient,  
by B. A. Balanin.  
RUSSIAN, per, Inzhenerno-Fizicheskiy zhurnal,  
Vol 13, No 4, Oct 1967, pp 564-567.  
\*FTD-HT-24-346-68

Application of the Hydrodynamic Analogy to Flow  
in a Supersonic Nozzle, by S. V. Shteyman.  
RUSSIAN, per, Inzhenerno-Fizicheskiy Zhurnal,  
Vol 14, No 2, 1968, pp 351-353.  
\*FTD-HT-23-300-68



Scientific  
Physics (Contd)

Axisymmetrical Vibrations of a Gas in a Cylindrical Container with the Taking Into Account of the Elasticity of Its End Wall, by V. M. Lyubimov, 8 pp.  
RUSSIAN, per, Inzhenernyy Zhurnal, Vol 5, No 4, 1965, pp 691-696.  
P100219868-V  
FTD-HT-23-729-67

Lesser Free Vibrations of Elastic Shells of Rotation, by G. I. Pshenichnov, 7 pp.  
RUSSIAN, per, Inzhenernyy Zhurnal, Vol 5, No 4, 1965, pp 685-690.  
P100219868-V  
FTD-HT-23-729-67

The Resistance of a Flat Plate Located Normal to the Flow of Greatly Rarefied Gas, by V. A. Perepukhov, 14 pp  
RUSSIAN, per, Inzhenernyy Zhurnal, Vol 5, No 5, 1965, pp 844-853  
P100207868-V  
FTD-MT-67-33

Experimental Investigation of Plastic Deformations Under Complex Loads, by V. I. Maksak, G. A. Doshchinskiy, 8 pp.  
RUSSIAN, per, Inzhenernyy Zhurnal, Mekhanika Tverdogo Tela, No 5, 1966, pp 118-122.  
P100242668-V  
FTD-MT-24-187-67

Phonon Dray in Indium and Gallium Antimonides, by D. Kh. Amirkhanova, R. I. Bashirov, 10 pp.  
RUSSIAN, per, AN AZERBSSR, Izvestiya. Seriya Fiziko-Matematicheskikh i Tekhnicheskikh Nauk, No 6, 1963, pp 59-65  
P100200268-V  
FTD-HT-66-776

Scientific  
Physics (Contd)

Investigating Thermal Conductivity of Alloyed Gallium Arsenide, by M. I. Aliyev, G. T. Akhmedli, 9 pp.  
RUSSIAN, per, AN AZERBSSR, Izvestiya. Seriya Fiziko-Tekhnicheskikh i Matematicheskikh Nauk, No 5, 1964, pp 49-55  
P100202268-V  
FTD-HT-67-198

Tuned Filter in a Waveguide, by P. Kard.  
RUSSIAN, per, AN ESTSSR, Izvestiya. Fizika, Matematika, No 3, 1967, pp 330-336.  
\*FTD-MT-24-342-68

Mixing Processes in a System of Two Parallel Jets, by F. Frishman, 6 pp.  
RUSSIAN, per, AN ESTSSR, Izvestiya. Seriya Fiziko-Matematicheskikh i Tekhnicheskikh Nauk, Vol 15, No 2, 1966, pp 207-210  
P100218568-V  
FTD-HT-23-989-67

Thermally and Optically Stimulated Phenomena in Cadmium-Sulfide Single Crystals, by A. Aydla, Ya. Kirs, 10 pp.  
RUSSIAN, per, AN ESTSSR, Izvestiya. Seriya Fiziko-Matematicheskikh i Tekhnicheskikh Nauk, No 3, 1966, pp 354-359  
P100205668-V  
FTD-HT-67-199

Galvanomagnetic and Thermomagnetic Properties of Gallium Arsenide After Diffusion of Copper, by G. V. Yemelyanenko, E. E. Klotyn'sh, 12 pp.  
RUSSIAN, per, AN LATSSR, Izvestiya. Seriya Fiziko-Matematicheskikh i Tekhnicheskikh Nauk, No 5, 1965, pp 47-54.  
P100224468-V  
FTD-HT-23-762-67

Concerning the Flow Stall Boundary in Compressor Vane Systems, by R. M. Fedorov, 11 pp.  
RUSSIAN, per, AN SSSR, Izvestiya. Energetika i Transport, No 4, 1965, pp 91-97.  
P100219068-V  
FTD-HT-67-187

Scientific  
Physics (Contd)

Supersonic Flow of a Combustible Gas Mixture Over a Sphere, by S. M. Gilinskiy, Z. D. Zapryanov, 13 pp. RUSSIAN, per, AN SSSR, Izvestiya. Mekhanika Zhidkosti i Gaza, No 5, 1966, pp 8-13. P100208068-V. FTD-HT-23-1068-67

Wave Conditions of a Flow of a Thin Layer of Viscous Liquid Under the Effect of Gravitation, by V. Ya. Shkadov, 13 pp. RUSSIAN, per, AN SSSR, Izvestiya. Mekhanika Zhidkosti i Gaza, No 1, 1967, pp 43-51. P100211768-V. FTD-MT-24-243-67

Calculation of the Effect of an Arbitrary Dynamic Load on Circular and Annular Plates, by Ye. M. Gershunov, 9 pp. RUSSIAN, per, AN SSSR, Izvestiya. Mekhanika i Mashinostroyeniye, No 6, 1964, pp 89-95. P100210668-V. FTD-HT-23-794-67

Cyclical Ductility as a Criterion for the Sensitivity of Metal to Stress Concentration in Fatigue, by S. Ye. Gurevich. RUSSIAN, per, AN SSSR, Izvestiya. Metally, No 1, 1968, pp 148-154. \*FTD-MT-24-351-68

Experimental Investigation for the Transformation of Laser Radiation by Optical Systems, by K. Kelov. RUSSIAN, per, Izvestiya Akademii Nauk Turkmen-skoi SSR, Seriya Fiziko-Tekhnicheskikh, Khimicheskikh i Geologicheskikh Nauk 1967, No 4, 1967, pp 38-44. \*FTD-MT-24-343-68

Thermal Operation of the Additional Components of a Burner System with Self-Carbonization of the Gas, by G. I. Demin. RUSSIAN, per, IVUZ. Chern Met, Vol 10, No 5, 1967, pp 163-168. \*FTD-MT-24-325-68

Conditions for the Occurrence of High Voltage Polarisation in Homogeneous Media, by Yu. A. Kopylov. RUSSIAN, per, IVUZ. Fizika, No 12, 1967, pp 21-29. \*FTD-HT-23-809-68

Scientific  
Physics (Contd)

A Study of Tropospheric Absorption of Radio Waves by Radio Astronomy Methods, by A. G. Kislyakov, K. S. Stankevich, 28 pp. RUSSIAN, per, Izvestiya Vysshikh Uchebnykh Zavedeniy, Radiofizika, Vol 10, Nos 9-10, 1967, pp 1244-1265. JPRS 46,311

Experimental Determination of the Basic Parameters of a High-Speed Hammer, by Yu. P. Sogrishin, N. F. Kobayakovskiy, 6 pp. RUSSIAN, per, Kuznechno-Shtampovnoye Proizvodstvo, No 1, 1966, pp 23-25. P100219568-V. FTD-HT-23-921-67

Holography in Plasma Diagnostics, by Z. N. Zaydel, G. V. Ostrovskaya et al, 25 pp. RUSSIAN, rpt, Leningrad No. 085, Feb. 1968, pp 1-28. AEC-Wp-Tr-1679 P911253768-V

The Quality Modulator of an Optical Quantum Generator on a Ruby, by Yu. V. Bayborodin, 3 pp. RUSSIAN, per, Mekhanizatsiya i Avtomatizatsiya Upravleniya, No 4, 1966, pp 40-42. P100218668-V. FTD-HT-23-735-67

Calculation of Nonsteady Temperature Fields in Structures by the Method of Moments, by B. M. Avkhimovich, 32 pp. RUSSIAN, per, Metody Raschetov Temperaturnykh Poloy i Teploizolyatsii Istatel'nykh Apparatov. Sbornik Statey, 1966, pp 3-34. P100211268-V. FTD-MT-23-622-67

The Difference Method of Calculating the Nonsteady Heating of a Structure, by V. V. Cherkalin, 26 pp. RUSSIAN, per, Metody Raschetov Temperaturnykh Poloy i Teploizolyatsii Istatel'nykh Apparatov. Sbornik Statey, 1966, pp 77-101. P100211268-V. FTD-MT-23-622-67

Experimental Determination of Heat Conductivity of Argon Plasma, by K. I. Asinovskiy. RUSSIAN, bk, Neshaundopanyy Simpozium po Svoystvam i Primeneniyu Nizkotemperaturnoy Plasmy pro khkh. Neshaundopanyy Ugresse po Teoreticheskoy i Prikladnoy Khimiy, 1965, pp 1-23. \*FTD-MT-24-317-68

Scientific  
Physics (Contd)

Pending Calculations for Structurally  
Orthotropic Plates, by S. A. Klimov, 43 pp.  
RUSSIAN, per, Moscow. Gosudarstvennyy Institut  
po Proektirovaniyu, Issledovaniyu i Ispytaniyu  
Stal'nykh Konstruktsiy i Mostov, No 8, 1964,  
pp 116-153.  
P100217468-V  
FTD-HT-23-624-67

One Example of the Calculation of  
Supersonic Gas Flow Near the Axis  
of Symmetry, by U. G. Pirumov,  
V. N. Suvorova, 8 pp.  
RUSSIAN, per, Moscow. Universitet.  
Vychislitel'nyy Tsentr. Sbornik Rabot,  
No 4, 1965, pp 52-61.  
P100229768-V  
FTD-HT-67-412

Correction of the Effect of the Boundary Layer  
on the Flow in Nozzles With a Broken Generatrix,  
by L. V. Pchelkina, V. K. Solodkin, 3 pp.  
RUSSIAN, per, Moscow. Universitet. Vychislitel'nyy  
Tsentr. Sbornik Rabot, No 4, 1965, pp 103-107.  
P100211168-V  
FTD-HT-67-000-91

Estimate of the Effect of Ionization Losses on  
Electron Containment Time in Magnetic Mirror  
Traps, by V. G. Ponomarenko, L. Ya. Trainin,  
et al. 6 pp.  
RUSSIAN, rpt, Novosibirsk No 154, Sept. 1967,  
pp 1-9  
ARC-EP-Tr-1077 P911253868-V

Nonlinear Waves in Plasma and Other Dispersive  
Media, by V. I. Karpman  
RUSSIAN, per, Novosibirsk, 1968, pp 1-6.  
\*AFCRU

Allowance for Backscattering of a Laser Beam  
Along Inclined Trajectories, by I. N. Davydova.  
RUSSIAN, per, Optiko-Mekhanicheskaya Promyshlennost',  
No 2, 1968, pp 6-10.  
\*FTD-HT-23-810-68

A Laser System Using an Electrooptic Quartz  
Q-Switch, by A. P. Zharkov  
RUSSIAN, per, Optiko-Mekhanicheskaya Promyshlennost',  
No 3, 1968, pp 30-33.  
\*FTD-HT-24-332-68

Scientific  
Physics (Contd)

Principles of the Physics of Semiconductor  
Devices, by Ya. A. Fedotov, 601 pp.  
RUSSIAN, bk, Osnovy Fiziki Poluprovodnikovyykh  
Priborov, 1964, pp 1-655.  
P100220468-V  
FTD-HT-67-194

On the Therman Radioemission of Mercury, by  
Yu. N. Vetukhnovskaya, A. D. Kuzmin, 11 pp.  
RUSSIAN, rpt, Phy. Inst. P. N. Lebedev,  
June 1968. P20023468  
RSIC-818

Bending of Circular Orthotropic Plate  
of Variable Thickness, by N. M. Maslov,  
9 pp.  
RUSSIAN, per, Prikladnaya Mekhanika,  
Vol 1, No 2, 1965, pp 67-73  
P100202468-V  
FTD-HT-67-342

A Model for the Determination of  
Thermoelectric Characteristics for  
Materials Reinforced with Fibers, by  
A. A. Kilchinskii, 16 pp.  
RUSSIAN, per, Prikladnaya Mekhanika,  
Vol 1, No 12, 1965, pp 65-74.  
P100229968-V  
FTD-HT-67-422

Stability and Oscillations of  
Rectangular Sandwich Plates With  
Large Cutouts, by G. P. Zinenko,  
8 pp.  
RUSSIAN, per, Prikladnaya Mekhanika,  
Vol 2, No 8, 1966, pp 59-63  
P100208268-V  
FTD-HT-67-343

On Elastic-Plastic Equilibrium in  
Shells of Revolution Under Finite  
Deflections, by I. S. Chernyashenko,  
17 pp.  
RUSSIAN, per, Prikladnaya Mekhanika,  
Vol 2, No 9, 1966, pp 26-36  
P100207068-V  
FTD-HT-67-344

Scientific  
Physics (Contd)

Designing Cylindrical Stringer-Stiffened Shells of Minimum Weight Under Axial Compression, 11 pp.  
RUSSIAN, per, Prikladnaya Mekhanika, Vol 2, No 9, 1966, pp 37-43  
P100207068-V  
FTD-HT-67-344

Oscillations of a Supersonic Gas Flow in a Channel of Finite Length With Oscillating Walls, by D. A. Derbentsev, 6 pp.  
RUSSIAN, per, Prikladnaya Mekhanika, Vol 2, No 9, 1966, pp 124-127  
P100207068-V  
FTD-HT-67-344

Transcritical Deformation of a Cylindrical Shell on Impact, by V. I. Borisenko, A. I. Klokova, 9 pp.  
RUSSIAN, per, Prikladnaya Mekhanika, Vol 2, No 10, 1966, pp 29-35  
P100205768-V  
FTD-HT-67-345

Oscillations of Non-Linearly Elastic Bodies with Hysteresis, by N. V. Vasilenko.  
RUSSIAN, per, Rasseyaniye Energii Pri Kolebaniyakh Uprug. Sistem, 1966, pp 8-18.  
\*FTD-HT-23-849-68

Natural Vibrations of Shells in a Fluid, by V. S. Gontkevich, 79 pp.  
RUSSIAN, bk, Sobstvennyye Kolebaniya Obolochek V Zhidkosti, 1964, pp 1-103.  
P100230068-V  
FTD-HT-23-1003-67

Theory of Viscous-Fluid Jets, by L. A. Vulis, V. P. Kashkarov, 527 pp.  
RUSSIAN, bk, Teoriya Struy Vyskoy Zhidkosti, 1965, pp 1-431  
P100199568-V  
FTD-HT-23-669-67

Scientific  
Physics (Contd)

Quick-Response Heat Gauge Orgres, by I. Ya. Zalkind, 8 pp.  
RUSSIAN, per, Teploenergetika, Vol 7, No 7, 1960.  
Dept of Commerce  
Nat Bureau of Standards

Hydrodynamics and Heat Exchange of Twirled Flow Between Two Coaxial Cylinders, by V. N. Zmeykov, B. P. Ustimenko, 15 pp.  
RUSSIAN, per, Teplo- i Massopereenos, Vol 1, 1965, pp 148-163.  
P100220968-V  
FTD-HT-66-175

Experimental Investigation of Friction and Heat Exchange at Flow of Gas in Diffused Channel with Cooled Walls in the Presence of Combustion, by P. N. Romanenko, A. N. Oblivin, 9 pp.  
RUSSIAN, per, Teplo- i Massopereenos, Vol 1, 1965, pp 164-171.  
P100220968-V  
FTD-HT-66-175

Generalization of Dependences Pertaining to Heat Transfer and to Loss of Pressure During Transverse Flow of Gas Past a Bundle of Finned Tubes, by I. Vampola, 10 pp.  
RUSSIAN, per, Teplo- i Massopereenos, Vol 1, 1965, pp 260-269.  
P100220968-V  
FTD-HT-66-175

Heat Exchange During Condensation of Potassium and Sodium Vapor, by V. I. Subbotin, M. N. Ivanovskiy.  
RUSSIAN, per, Teplo i Massopereenos, 1966, 10 pp.  
P100247568-V  
FTD-HT-24-54-68

The Effect of the Character of Ground Surface on the Polarization of Scattered Luminosity of the Sky, by P. N. Boyko, 17 pp.  
RUSSIAN, per, Trudy. AN KAZSSR. Astrofizicheskii Institut, Vol 3, 1962, pp 149-162.  
P100220868-V  
FTD-HT-24-279-67

On the Nonlinear Flutter of a Plate Fixed Along Its Perimeter, by B. P. Makarov, 8 pp.  
RUSSIAN, bk, Trudy. AN SSSR. Kazanskiy Filial Kazanskoy Gosudarstvennoy Universitet. Trudy Konferentsii Po Teorii Plastin i Obolochek, 1961, pp 220-225  
P100207368-V  
FTD-HT-67-217

Scientific  
Physics (Contd)

Experimental Studies of Crystallization of Super-Cooled Clouds by Pyrotechnical Compositions Containing Silver Iodide and Lead Iodide, by Yu. P. Sumin, 13 pp.  
RUSSIAN, per, Trudy Glavnoy Geofizicheskoy Observatorii, No 186, 1966, pp 26-37.  
JPRS 46050

Refinement of the Equation for Determining the Calculated Temperature Difference in Convective Bundles with Gas Radiation, by B. D. Doynikov, 8 pp.  
RUSSIAN, per, Trudy. Kuybyshev. Aviatzionnyy Institut, No 15, 1963, pp 177-184.  
P100201168-V  
FTD-HT-23-800-67

Method of Integral Relations in the Theory of Turbulent Jet Flows, by A. S. Ginevskiy, 35 pp.  
RUSSIAN, per, Moscow. Tsentral'nyy Aero-Gidrodinamicheskyy Institut. Promyshlennaya Aerodinamika, No 27, 1966, pp 5-30.  
P100207968-V  
FTD-MT-24-173-67

Nature of Low-Temperature Anomalies of Luminescence of Antiferromagnetic Crystals, by V. V. Bremenko.  
RUSSIAN, per, Ukrayinsk'yy Fizicheskyy Zhurnal, Vol 11, No 8, 1966, pp 902-903.  
\*FTD-MT-23-830-68C

Direct Determination of Sensitivity of Microcrystals to Charged Particles, by A. P. Zhdanov.  
RUSSIAN, per, Usp. Nauch/Fotogr., No 12, 1966, pp 40-52.  
\*FTD-MT-24-347-68

Problems of Solid State Physics, by Ye. V. Trushin, 3 pp.  
RUSSIAN, per, AN SSSR. Vestnik, No 4, 1966, pp 149-150.  
P100226368  
FTD-MT-23-983-67

Scientific  
Physics (Contd)

Indexing Slow Electron Diffraction Patterns of NaCl, by G. K. Zyryanov  
RUSSIAN, per, Vestn. Leningrad. Univ 21(16), Ser. Fiz, Khim, No 3, 1966, pp 70-74.  
\*FTD-MT-24-357-68

Study of Radiation-Induced Polymerisation: VI. Radiation-Induced Polymerisation of Chloroprene, by V. S. Ivanov.  
RUSSIAN, per, Vestnik Leningradskogo Universiteta #22, 1965, pp 154-164.  
ACSI J-5028  
FSTC HT-23-209-68

The Measurement of Dielectric Properties of Liquids with Large Losses, by V. V. Levin  
RUSSIAN, per, Vestn. Mosk. Univ. Ser. II, Vol 22, No 1, 1967, pp 23-26.  
\*FTD-MT-24-330-68

Conference Examines Philosophical Problems in Physics, by A. Ya. Yermolov, P. Ya. Pakhomov, 5 pp.  
RUSSIAN, per, Vestnik Moskovskogo Universiteta. Seriya 8. Filosofiya, May-Jun 1968, pp 101-104.  
JPRS 46,344

Space-Energy Distribution of Neutrons in Thick Layers of Iron, by V. P. Mashkovich, V. K. Sakharov, 10 pp.  
RUSSIAN, rpt, Voprosy Fiziki Zashchity Reaktorov. Sbornik Statey. Gosatomizdat. Moscow, 1963, pp 182-190.  
P100242868-V  
FTD-MT-24-257-67

Angular Energy Spectra of Fast Neutrons Behind Iron Shields, by T. A. Gernogenova, A. P. Suworov, 13 pp.  
RUSSIAN, per, Voprosy Fiziki Zashchity Reaktorov. Sbornik Statey, No 2, 1966, pp 74-87.  
P100243668-V  
FTD-MT-24-253-67

Problems of Plasma Theory, by B. B. Kadomtsev, 211 pp.  
RUSSIAN, per, Voprosy Teorii Plazmy, No 4, 1964, pp 183-199.  
P100223168-V  
FTD-MT-23-778-67

Scientific  
Physics (Contd)

Scientific  
Physics (Contd)

Filiform Single Crystals of Refractory Oxides and Their Use, by P. P. Budnikov, D. B. Sandulov, 17 pp.  
RUSSIAN, per, Vsesoyuznoye Khimicheskoye Obshchestvo. Zhurnal, Vol 10, No 5, 1965, pp 506-511  
P100200068-V  
FTD-HT-23-497-67

Device for Automatically Choosing the Selection Angle Shortwave Communication System With Spatial Beam Selection and Relative Phase Keying, by Ye. F. Karnev, P. V. Belov, 4 pp.  
RUSSIAN, per, Vsesoyuznaya Nauchnaya Sessiya, Posvyashchennaya Dnyu Radio, 22nd, Moscow, Sektsiya Teorii i Tekhniki Peredachi Diskretnykh Signalov, 1966, pp 32-36. P100245568-V  
FTD-HT-24-223-67

The Basic Properties of Materials and Design which Determine the Service Life of Nozzle Blades, by A. A. Rabinovich.  
RUSSIAN, rpt, Vsesoyuznoye Nauchno-Tekhnicheskoye Soveshchaniye po Voprosam Prochnosti Materialov i Konstruktsionnykh Elementov pri Vysokikh Temperaturakh, 4th Kiev, Termoprochnost' Materialov i Konstruktsionnykh Elementov; Materialy Soveshchaniya, No 4, 1967, pp 477-484.  
\*FTD-HT-23-795-68

Resonance Installation for Testing Fatigue of Materials at High Temperatures, by A. V. Antonovich, 7 pp.  
RUSSIAN, per, Zavodskaya Laboratoriya, Vol 21, No 2, 1955, pp 231-234  
P100205568-V  
FTD-HT-67-445

Measurement of the Average Coefficient of Heat Transfer for Liquid Metals by the Heat-Exchanger Method, by D. I. Gremilov, D. M. Kalachev, 9 pp.  
RUSSIAN, bk, Zhidkiye Metally. Spornik Statey, 1963, pp 158-164  
P100206368-V  
FTD-HT-67-353

Focusing a Molecular Beam by Means of a Heterogeneous Magnetic Field, by M. I. Korsunskiy, I. A. Popel, 10 pp.  
RUSSIAN, per, Zh. Eksp. Teor. Fiz., Vol 21, 1951, pp 25-37. P011248608-V  
AEC-MRC-TT-1312

Physicochemical Modeling of Information and Thought Processes, by M. I. Kobozev, M. V. Lomonosov, 9 pp.  
RUSSIAN, per, Zhurnal Fizicheskoy Khimii, May 1968, pp 1045-1051.  
JPRS 46,248

Thermodynamic Constants of Difficultly Soluble Sulfates, Carbonates, Chromates, Bromates, Iodates, Oxalates and Other Metal Salts, by N. P. Zhuk, 10 pp.  
RUSSIAN, per, Zhurnal Fizicheskoy Khimii SSSR, Vol 28, No 9, 1964.  
Dept of Commerce  
Nat Bureau of Standards

Comparing the Dispersity of a Latent Image Formed by the Action of Light and Action of Ionizing Particle, by A. L. Kartuzhanskiy, 9 pp.  
RUSSIAN, per, Zhurnal Nauchnoy i Prikladnoy Fotografii i Kinematografii, Vol 9, No 4, 1964, pp 276-282  
P100206168-V  
FTD-HT-23-483-67

Possibility of Investigating the Transmission of a Narrow Beam of Light Across the Surface and Through the Sea by the Method of Photographic\*, by L. I. Kastal'skiy, 10 pp.  
RUSSIAN, per, Zhurnal Nauchnoy i Prikladnoy Fotografii i Kinematografii, Vol 11, No 5, 1966, pp 359-369  
P100202968-V  
FTD-HT-67-480

Approximate Solution of Problem on Stationary Induced High-Frequency Discharge in Closed Volume, by V. A. Grushev, R. Ye. Rovinskiy, 12 pp.  
RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 1, pp 143-150.  
P100245068-V  
FTD-HT-24-332-67

Scientific  
Physics (Contd)

The Influence of Hall Currents During Acceleration of a Conducting Gas in its Intrinsic Magnetic Field, by G. M. Bam-Zelikovic, 11 pp. RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 4, 1965, pp 27-34. P100205368-V  
FTD-HT-67-458

Slow Oscillations of the Potential in Electron-Ion Fluxes Near The Emitter, by V. M. Smirnov, 9 pp. RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 1, 1966, pp 8-14. P100222268-V  
FTD-HT-67-457

Some Methods of Solving a Nonlinear Integro-Differential Equation on the Theory of Jet Flow of an Ideal Fluid, by G. N. Pykhteyev, 29 pp. RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 2, 1966, pp 72-86. P100206568-V  
FTD-HT-23-496-67

The Effect of a Magnetic Field on the Stagnation-Point Flow Past a Blunt Body in the Presence of Ablation of an Electrically Conducting Shield, by E. A. Tropp, 11 pp. RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 3, 1966, pp 17-25. P100205268-V  
FTD-HT-67-455

Calculation of Turbulent Heat Exchange on a Semipermeated Surface When a Foreign Gas is Blown In, by S. S. Kutateladze, A. I. Leont'yev, 5 pp. RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 5, 1966, pp 123-125. P100229368-V  
FTD-HT-23-928-67

Scientific  
Physics (Contd)

A Two-Dimensional Resonator Laser, by B. B. Boyko. RUSSIAN, per, Zhurnal Prikladnoy Spektroskopii, Vol 8, No 2, 1968, pp 351-353. \*FTD-HT-23-815-68

Photomultiplier, by G.E. Levin, 3pp RUSSIAN, Patent 175,570. P100229868-V  
FTD-HT-23-897-67

A Method of Obtaining An Electric Conducting Layer on the Surface of Dielectrics, by B. P. Kryzhanovskiy, 2 pp. RUSSIAN, Patent No 180670 (839425/24-7) Class 21c, 2/34. P100226868  
FTD-HT-23-570-67

A Method for Inspecting the Surface of Internal Cavities of Spherical Parts, by V. P. Korotkov, 2 pp. RUSSIAN, Patent No 180829 (926090/26-10), Class 42h, 35/03. P100217168-V  
FTD-HT-23-1109-67

A Method of Developing the Projections of Separate Objects From a Complex Multiline Image, by V. S. Fayn, 2 pp. RUSSIAN, rpt, Patent 180859 (750178/26-24) Class 42M, 14/04, pp 1-2. P100218468  
FTD-HT-23-1115-67

Semiconductor Quantum Generator With External Resonator, by N. G. Basov, O. V. Bogdankevich, 16 pp. RUSSIAN, per, Preprint No 109, Moscow, 1968, pp 1-16. JPRS 48504

Effect of Optical Glass Properties on the Cooling Process, by V.I. Primenko. UKRAINIAN, per, Dopov. AN UkrSSR, No 10, 1966, pp 1321-1322. \*FTD-HT-23-844-68C

**Scientific  
Physics (Contd)**

**Effect of Redistribution of Electrons in a Plasma Waveguide in a Field of a Strong Electromagnetic Wave**, by A. M. Fedorchenko, 6 pp.  
UKRAINIAN, per, Ukrayins'kyy Fizychnyy Zhurnal, Vol 11, No 2, 1966, pp 152-158  
P100206968-V  
FTD-HT-67-401

**Movement of a Plasma Stream Through a Non-uniform Transverse Magnetic Field**, by K. D. Symel'nykov, V. P. Goncharenko, 5 pp.  
UKRAINIAN, per, Ukrayins'kyy Fizychnyy Zhurnal, Vol 11, No 8, 1966, pp 825-828. P100222368-V  
FTD-HT-23-926-67

**Effective Outline of Electron Scattering in Plasma; In Helium and in Argon with a Mixture of Cesium Vapor**, by I. M. Polushkin, D. Ya. Dudko, 8 pp.  
UKRAINIAN, per, Ukrayins'kyy Fizychnyy Zhurnal, Vol 11, No 9, 1966, pp 950-955. P100222768-V  
FTD-HT-23-919-67

**Measurements of Resistivity and Hall Effect in Silicon Carbide by the Van der Pauw Method**, by Fung Si-chi  
CHINESE, per, Acta Physica Sinica, Vol 22, No 9, 1966, pp 967-975.  
\*AFCHL

**Minority Carrier Lifetime in Silicon Carbide by the Electro-Luminescence Method**, by Yui Shou-dung  
CHINESE, per, Acta Physica Sinica, Vol 22, No 9, 1966, pp 976-981.  
\*AFCHL

**The Experimental Observation of Dislocation Multiplication in Silicon Crystals**, by Liu Chen-mao  
CHINESE, per, Acta Physica Sinica, Vol 22, No 9, 1966, pp 1077-1097.  
\*AFCHL

**The Structure of the Light Stimulator by Ming-Kao Ho**, 9 pp.  
CHINESE, per, K'io Hsueh Hua Pao, No 1, 1963, pp 11-12  
P100206868-V  
FTD-HT-67-215

**Scientific  
Physics (Contd)**

**Applications of Lasers**, by Ch'um Hsiang, 2 pp.  
CHINESE, per, K'io Hsueh Hua Pao, No 1, 1963, pp 13-15.  
P100222568-V  
FTD-HT-23-1024-67

**Recent Foreign Developments in Laser Technology**, by Wu-Han Huang, 21 pp.  
CHINESE, per, K'io Hsueh T'ung Pao, No 2, 1965, pp 166-174  
P100208968-V  
FTD-HT-67-216

**The Condition for the Formation of the Secondary Shock Wave in Hypersonic Flow**, by Han-Hsin Chang, 12 pp.  
CHINESE, per, Li Hsueh Hsueh Pao (Acta Mechanica Sinica), Vol 8, No 4, 1965, pp 316-322  
P100199868-V  
FTD-HT-67-460

**Calculation of Thermal Stresses of Shallow Shells**, by Ho Kuang-ch'ien.  
CHINESE, per, Peking, T'u-mu Kung-ch'eng Hsueh-pao, Vol 8, No 1, Jan 1962, pp 1-13.  
\*FTD-HT-23-840-68C

**Certain Demands on the Optical Frequency Receivers in Communication Systems Using Coherent Light**, by Heng Ch'en, 13 pp.  
CHINESE, per, Wu Hsien Tien Chi Shu, No 11, 1965, pp 12-17.  
P100226168-V  
FTD-HT-23-606-67

**Plasma Flame Heating**, by Chin Kai.  
CHINESE, per, Wu Hsien Tien Chi Shu, No 4, 1966, p 7.  
ACSI J-3767  
ID 2364053167



**Scientific  
Physics (Contd)**

Spectral Characteristics of the Stimulated Emission of Gallium Arsenide p-n Junctions, by Shou-Wu Wang, Wei-Hua Chuang, 5 pp. CHINESE, per, Wu Li Hsueh Pao (Acta Physica Sinica), Vol 21, No 5, 1965, pp 1077-1079 P100209268-V FTD-HT-67-393

Spin-Related Polarization Effect in Compton Scattering of Relativistic Electrons, by Ching-Fa Lu, 6 pp. CHINESE, per, Wu Li Hsueh Pao, Vol 21, No 11, 1965, pp 1927-1931 P100206468-V FTD-HT-67-394

The Velocity of Dislocations in Silicon Crystals, by Ching Hung, I-Cheng Yeh, 14 pp. CHINESE, per, Wu Li Hsueh Pao (Acta Physica Sinica), Vol 21, No 12, 1965, pp 1968-1976 P100203968-V FTD-HT-67-395

Pulsed Electrodeless Discharge as a Light Source for Laser Excitation and Observation of the Characteristics of Laser Output, by Tsun-K'uei Chang, 13 pp. CHINESE, per, Wu Li Hsueh Pao (Acta Physica Sinica), Vol 22, No 2, 1966, pp 174-182 P100201668-V FTD-HT-67-392

The Importance of the Anisotropic Model of a Crystal in Dislocation, by Juliana Bastacka, 29 pp. CZECH, per, Ceskoslovensky Casopis pro Fyziku, Vol 18, 1968. Dept of Commerce Nat Bureau of Standards

On the Problems of Vacuum Technology in the Preparation of Thin Films, by W. Espe, 17 pp. CZECH, per, Jarna Mechanika A Optika, No 10, 1965, pp 305-310. P100221668-V FTD-HT-67-399

**Scientific  
Physics (Contd)**

Thin Layers in Optics, by Zd. Knittl, 8 pp. CZECH, per, Jarna Mechanika A Optika, No 11, 1966, pp 218-220. P100218768-V FTD-HT-23-1032-67

Contribution to the Theory of Thermodynamic Simulation of Compressors, by Karel Celikovsky, 24 pp. CZECH, per, Letnany. Vyzkumny a Zkusebni Letecky Ustav. Zpravodaj Vzlu, No 1, 1965, pp 3-12. P100217668-V FTD-HT-23-636-67

Contribution to Research on Losses in the Axial Flow Compressor Stage at Transonic Velocities, by F. Klimes, 11 pp. CZECH, per, Letnany. Vyzkumny a Zkusebni Letecky Ustav. Zpravodaj Vzlu, No 2, 1965, pp 19-24. P100211468-V FTD-HT-23-635-67

Experimental Methods in the Study of Heat Transfer at High Temperature, by R. Dvorak, L. Krejci, 10 pp. CZECH, per, Strojnický Casopis, Vol 16, No 2, 1965, pp 198-205. P100226968-V FTD-HT-23-988-67

Contribution to Velocity-Gage Measurement of a Non-Compressible Fluid in a Turbulent Flow, by Z. Budlovskiy. CZECH, per, Strojnický Casopis, No 6, 1967, pp 498-507. \*FTD-HT-23-825-68

Optical Coherent Sources as Quantitative Generators and Quantitative Amplifiers, by J. Bolf, 7 pp. CZECH, per, Svet Vedy (Army), No 7, 1965, pp 411-415. P100227268-V FTD-HT-23-649-67

**Scientific  
Physics (Contd)**

Study of the Quaternary System  $B_2O_3$ -HF-CaO-H<sub>2</sub>O at 25 C. I. Liquid-Solid Equilibria Diagram, by Jean-Louis Leibenguth, 25 pp.  
FRENCH, per, Bull. Soc. Chim. de France No 12, 1966, pp 3803-3811. P911256368-V  
AEC-K-Tr-42

Note on Various Theorems Relative to the Ractification of Curves and to the Quadrature of Surface Surfaces, by Augustin Cauchy, 7 pp.  
FRENCH, per, Compt. Rend., Vol 13, 1841, pp 1060-1065. P911255468-V  
AEC-ORNL-Tr-1984

Some Problems of Safety in the Development of the BR-5, by V. V. Orlov.  
FRENCH, rpt, Conference Internationale Sur La Surete Des Reacteurs A Neutrons Rapides, 1967, pp 2-36.  
\*FTD-MT-24-365-68

Thermal Protection by Ablation, by H. Lacaze.  
FRENCH, bk, Doc-Air-Espace, July 1967, pp 23-32.  
\*FTD-HT-23-824-68

Measurements of Surface Waves in Rigid Bodies, by F. Rischbieter  
GERMAN, per, Acustica, Vol 16, 1965/66, pp 75-83.  
\*AFCHL

Multi-Coloured Display of X-Ray Images Produced in the Electron Probe Microanalyser, by G. Lennarts, H. De Laffolie.  
GERMAN, per, DZW-Techn. Ber. Vol 6, No 4, 1966, pp 201-207.  
BISI 6400

Some Applications of Ultrasonic Image Storage Methods, by F. Michalski.  
GERMAN, per, Materialprüfung, Vol 10, No 2, 1968, pp 37-42.  
HB 7450

Studies of Lattice Defects in Neutron-Irradiated Lithium Fluoride, by Hans Peisl, 29 pp.  
GERMAN, per, Z. Angew. Phys. Vol 14, 1962, pp 529-536  
AEC-UCRL-tr-10251 P911253468-V

**Scientific  
Physics (Contd)**

Magnetization-Reversal Losses of Transformer Sheets, by V. Zehler  
GERMAN, per, Z. angew. Phys., Vol 21, Nov 1966, pp 433-434  
BISI 5608

Collisions of Slow Negative Ions with Charge Transfer, by K. Kraus  
GERMAN, per, Zeitschrift fur Naturforschung, Vol 16a, 1961, pp 1385-1387.  
\*AFCHL

Time-of-Flight Analysis of a Potassium Atomic Beam Scattered by a Carbon Dioxide Molecular Beam, by J. Gspann  
GERMAN, per, Zeitschrift fur Naturforschung, Vol 23a, 1968, pp 726-730.  
\*AFCHL

Experimental Investigation on a Hydrogen Arc in a Superimposed Axial Magnetic Field, by C. Mahn.  
GERMAN, per, Zeitschrift Fur Naturforschung, Vol 1, 2, No 23a, 1968, pp 867-873, pp 874-880.  
\*BISI 6646

Mechanism for Electrolysis of Beryllium from  $KF-2-Be(C_2H_5)_2$ , by W. Strommeier.  
GERMAN, per, Zeitschrift fur Naturforschung. Tubingen, Verlag der Zeitschrift fur Naturforschung. Vol 23b, No 1, 1968, pp 38-41.  
\*FTD-HT-23-804-68

Electron Spin Resonance in Alkali Halide Crystals Containing Sulphur and Selenium, by A. Hausmann, 14 pp.  
GERMAN, per, Zeit. fur Physik, Vol 192 (3), 1966, pp 313-328. P911250468-V  
AEC-NRC-TT-1311

Fluid Type Logic Elements, by Carlo Torresan, 15 pp.  
ITALIAN, per, Rivista di Ingegneria, No 9, 1967, p 715-720 P911250068-V  
AEC-SC-T68-1534

Review on Color Matching Functions, by Y. Sugiyama.  
JAPANESE, per, Electrotechnical Lab. Circulars, No 152, 1966, 19 pp.  
ACSI J-5062  
PSTC-HT-23-194-68

Scientific  
Physics (Contd)

The Problem of Simultaneously Evaluating Structure and Stress in Ferromagnetic Materials by Using Magnetic Tests, by A. Karamara, 8 pp.  
POLISH, per, Polska Akademia Nauk. Zeszyty Problemowe Nauki Polskiej, No 26, 1965, pp 549-558.  
P100219668-V  
FTD-HT-23-740-67

A Review of the Physical Properties of Some New Semiconductors of the Groups III-V, by B. Seroczynska-Wojas, 14 pp.  
POLISH, per, Postepy Fizyki, Vol 17, No 1, 1966, pp 29-41  
P100204568-V  
FTD-HT-67-351

Nuclear Magnetic Resonance and Its Applications, by R. Bulaceanu, S. Trestianu, 39 pp.  
RUMANIAN, per, Revista de Chimie, Vol 17, No 2, 1966, pp 81-91  
P100206268-V  
FTD-HT-67-461

Harmonic Oscillatory Motion of the System Wing-Conical Fuselage Under Supersonic Conditions, by E. Carafoli, D. Mateescu, 12 pp.  
RUMANIAN, per, Studii Si Cercetari De Mecanica Aplicata, Vol 23, No 5, 1966, pp 1343-1353.  
P100240868-V  
FTD-HT-23-872-67

Comparison of Methods of Calculation of Heat and Mass Transfer for Finned Coils, by G. Trapeznice, 10 pp.  
SPANISH, rpt, International Congress of Refrigeration, 12th Special Bulletin, Vol 47, No 3, 1967.  
Dept of Commerce  
Nat Bureau of Standards

Scientific  
Propulsion & Fuels

To Question About Selection of the Optimum Thrust-Weight Ratio of VTOL With Respect to Lift Engines, by O. K. Bogdanov, V. I. Rudomanov, 4 pp.  
RUSSIAN, per, An UKR SSR. Gidrodinamika Bol'shikh Skorostey, No 3, 1967, pp 114-118.  
P100244268-V  
FTD-MT-24-358-67

Effect of Nozzle Angle on the Efficiency of Impulse Stages, by V. D. Pshenichnyy.  
RUSSIAN, per, Energomashinostroyeniye, No 12, 1966, pp 20-22.  
\*FTD-MT-24-344-68

Concurrent Discharge of Two Gas Flows Through a Jet Nozzle, by Ye. D. Sten'kin, 10 pp.  
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh Zavedeniy. Aviatcionnaya Tekhnika, No 2, 1966, pp 83-89  
P100208868-V  
FTD-HT-67-177

The Molecular Mixing Velocity Along the Basic Segment of a Turbulent Jet, by A. G. Prudnikov, N. A. Zamyatina, 11 pp.  
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh Zavedeniy. Aviatcionnaya Tekhnika, No 3, 1966, pp 104-110  
P100204868-V  
FTD-HT-67-212

On One Possibility of Increasing the Stage Efficiency of a Gas Ejector, by V. S. Baykov, Yu. N. Vasil'yev, 12 pp  
RUSSIAN, per, Lopatochnyye Mashiny i Struynyye Apparaty. Spornik Statoy, No 1, 1966, pp 235-249  
P100201068-V  
FTD-MT-24-185-67

**Scientific  
Propulsion & Fuels (Contd)**

**On Calculating the Throttling Characteristics of a Gas Ejector With Negative Ejection Coefficients,** by Yu. N. Vasil'yev, 8 pp  
RUSSIAN, per, Lopatochnyye Mashiny I Struynyye Apparaty. Sbornik Statey. No. 1, 1966, pp 250-258  
P100201068-V  
FTD-MT-24-185-67

**Pressing Problems of Oil-Refining Development,** by A. Pichugin, 6 pp.  
RUSSIAN, per, Neftyanik, June 1968, pp 2-3.  
JPRS 46088

**The Motion of a Body of Variable Mass with Accumulation of Energy and an Engine with Restricted Jet Discharge Velocity. Part II,** by G. I. Grodzovskiy, B. N. Kiforenko, 5 pp.  
RUSSIAN, rpt, O Dvizhenii Tela Peremennoy Massy s Nakopleniyem Energii i Dvizhitel'm s Ogranichennoy Skorost'yu Istecheniya Reaktivnoy Strui - Part II, 1966, pp 1-5.  
P100204469  
FTD-MT-67-324

**The Disturbance of Normal Conditions of the Burning of Porous Charges of Explosive Substances,** by V. K. Bobolev, I. A. Karpukhin, 7 pp  
RUSSIAN, per, Teplo- I Massopereenos. Vol 4, 1966, pp 273-278  
P100164768-V  
FTD-MT-24-248-67

**Temperature Errors in Measuring the Diameter of a Rotor of a Compressor and a Gas Turbine Engine,** by I. Ye. Velikovskiy, 7 pp.  
RUSSIAN, per, Trudy. Kazan. Aviatzionnyy Institut. Aviatzionnaya Tekhnologiya i Ogranicheniya Proizvodstva, No 84, 1964, pp 15-22.  
P100222668-V  
FTD-MT-23-992-67

**Turbulent Mixing of Two Semi-Infinite Streams of Reacting Gases,** by Ye. F. Avdeyev, F. Aliyev, 14 pp.  
RUSSIAN, per, Trudy. Leningrad. Politehnicheskii Institut. Gidromekhanika, No 265, 1966, pp 65-74.  
P100220668-V  
FTD-MT-24-361-67

**Scientific  
Propulsion & Fuels (Contd)**

**Decelerating Systems,** by Z. I. Taranenko, Ya. K. Trokhimenko.  
RUSSIAN, bk, Zamedlyayushchiye Sistemy, 1965, pp 1-305.  
ACSI J-5154  
FTSC-MT-23-254-68

**An Antisurge Regulator,** by I. S. Ratner, 2 pp.  
RUSSIAN, Patent 158185 (810160/24-6), Class 47g, 48g, pp 1-2.  
P100221968-V  
FTD-MT-23-1117-67

**Gas Turbine,** by N. N. Bykov, O. N. Yemin, 2 pp.  
RUSSIAN, Patent 169947 (863598/24-6), Class 46f, 501, pp 1-2.  
P100221568-V  
FTD-MT-23-1009-67

**Mixer and Exhaust Nozzle of Gas Turbine Combustion Chambers,** by M. M. Kovalevskiy, V. N. Gorahkov, 2 pp.  
RUSSIAN, rpt, Patent 177231 (863241/24-6) Class 46f, 402, pp 1-2.  
P100230268-V  
FTD-MT-23-947-67

**Computing the Critical Velocity of a Turbine on a Ural I Computer,** by L. Prasek, 10 pp.  
CZECH, rpt, Celostatna Konferencie o Problemoch Dynamiky Strojov. 2d. Smolerice, 1961. Dynamika Strojov. Sbornik, 1963, pp 388-401.  
P100222168-V  
FTD-MT-23-1001-67

**Radiometric Methods for Measuring Clearances Inside Hot-Air Turbines,** by M. Navratil, 15 pp.  
CZECH, per, Strojovostri, Vol 14, No 12, 1964, pp 737-741.  
P100222968-V  
FTD-MT-23-1046-67

**Safety Problems in the Design of Very Fast Reactors Using Plutonium Fuel,** by A. I. Leypunskiy.  
FRENCH, rpt, Conference Internationale Sur La Surete Des Reacteurs A Neutrons Rapides, 1967, pp 1-13.  
FTD-MT-24-361-68

Scientific  
Propulsion & Fuels (Contd)

Provisions for Reliable Heat Removal from the BN-350 and BOR Reactors, by A. A. Rineyskiy  
FRENCH, rpt, Conference Internationale Sur La Surete Des Reacteurs A Neutrons Rapides, 1967, pp 2-26.  
\*FTD-MT-24-362-68

Emergency Conditions in Operating the BOR Reactor, by I. A. Kuznetsov  
FRENCH, rpt, Conference Internationale Sur La Surete Des Reacteurs A Neutrons Rapides, 1967, pp 2-26.  
\*FTD-MT-24-363-68

List of Studies Conducted and Published by O.N.E.R.A. on the Ramjet Since 1955.  
FRENCH, per, Office National d'Etudes et de Recherches Aerospatiales. Departement des Etudes de Syntheses, Chatillon, O.N.E.R.A., 1968, pp 1-8.  
\*FTD-HT-23-794-68

Gas Turbine Combustion Chambers with Film Evaporation, by A. W. Hussmann.  
GERMAN, per, Dresden. Technische Universitat. Wissenschaftliche Zeitschrift, Vol 16, No 2, 1967, pp 353-357.  
\*FTD-HT-23-872-68

Simulation of the Oil Circulation of Turbine Propulsion Units and Its Significance for the Investigation of Aircraft Turbine Oils Under Conditions Close to Actual Service, by G. Spengler, E. K. Jantsen, 12 pp.  
GERMAN, per, Sonderdruck Aus "Zeitschrift For Flugwissenschaften", Vol 14, No 2, 1966, pp 99-102. F100210168-V  
FTD-HT-23-877-67-C

Soviet Rockets and Rocket Engines, by E. Nagy  
HUNGARIAN, per, Muszaki Elet, No 22, p 1, Col 1-2, 1967, p. 8, Col 1-3.  
\*FTD-HT-23-864-68

Development and Tasks of Hungarian Petroleum Processing Industry, 8 pp.  
HUNGARIAN, per, Muszaki Elet, Vol 25, 30 Nov 1967, pp 26-32.  
JPRS 45685

Liquid Fuels in Space Heating, 6 pp.  
HUNGARIAN, per, Muszaki Elet, 30 Nov 1967, p 29.  
JPRS 45685

Scientific  
Propulsion & Fuels (Contd)

Current Status and Development of Our Fuel Supply Network, 10 pp.  
HUNGARIAN, per, Muszaki Elet, 30 Nov 1967, p 32.  
JPRS 45685

Considerations on the Dimensioning of the Rotor of a Centrifugal Compressor with Blading Radial to the Outside Diameter, by F. Surace, 19 pp.  
ITALIAN, rpt, Istit. di Macchine del Politecnico di Milano P911256168-V  
AEC-K-tr 40

Space Technology

Problems in Space Toxicology, by V. V. Kustov, L. A. Tiunov, 8 pp.  
RUSSIAN, per, Izvestiya Akademii Nauk SSSR, Seriya Biologicheskaya, July-Aug 1968, pp 605-608.  
JPRS 46403

Observations of Artificial Earth Satellites, RUSSIAN, monograph, Nablyudeniya Ispisestvennykh Sputnikov Zemli, No 6, 1967, pp 1-60.  
\*FTD-HT-23-856-68

Scientist Reviews Problems of Space Psychology, by V. Lebedev, 12 pp.  
RUSSIAN, per, Nauka i zhizn', Moscow, No 3, 1968, pp 25-29.  
JPRS 46446

How Man Might Communicate With Other Planets, by D. Kulin, 6 pp.  
RUSSIAN, per, Nauka i zhizn', Moscow, No 3, 1968, pp 110-111.  
JPRS 46446

Scientific  
Space Technology (Contd)

Review of Some Qualitative Results  
Obtained in Flight Dynamics by the  
Optimal Processes Theory, by  
V. K. Isayev, Yu. M. Kopnin, 40 pp.  
RUSSIAN, bk, Obzor Nekotorykh  
Kachestvennykh Rezul'tatov,  
Poluchennykh V Dinamike Poleta S  
Pomosch'yu Teorii Optimal'nykh  
Protsessov, 1966, pp 1-49  
PI00203768-V  
FTD-HT-23-533-67

Principles of Flight Theory and Elements of  
Designing Artificial Earth Satellites, by  
M. K. Tikhonravov.  
RUSSIAN, mono, Osnovy Teorii Poleta i Elementy  
Proyektirovaniya Iskusstvennykh Sputnikov Zemli,  
Moscow, 1967, pp 250-295.  
\*FTD-HT-24-328-68

Tragedy at Cape Kennedy, by T. Borisov, 2 pp.  
RUSSIAN, np, Trud, No 25, Jan 29, 1967, p 3.  
PI00217368-V  
FTD-HT-23-1122-67

The Doppler Method of Navigational Use of Arti-  
ficial Earth Satellites, by Ye. N. Perevzentsev,  
14 pp.  
RUSSIAN, per, Leningrad, Tsentral'nyy Nauchno-  
Issledovatel'skiy Institut Kosmogo Flota. Trudy,  
No 73, 1966, pp 65-76. PI00244068-V  
FTD-HT-24-247-67

Selection of Space Beacon Orbits for Continuous-  
Operation Navigation Satellite Systems, by  
Ye. N. Perevzentsev, 20 pp.  
RUSSIAN, per, Trudy Tsentral'nogo Nauchno-Issledovatel'skogo Instituta Kosmogo Flota, No 93,  
1967, pp 64-75.  
JPRS 46,281

Problems of Optimisation in the  
Mechanics of Spaceflight With Small  
Thrusts, by G. L. Grodovskiy,  
Yu. N. Ivanov, 23 pp.  
RUSSIAN, per, Vsesoyuznyy S'ezd Po  
Teoreticheskoy i Prikladnoy Mekhanike,  
2d, Moscow, 1964, Analiticheskaya  
Mekhanika. Ustoychivost' Dvizheniya.  
Nebesnaya Ballistika, No 1, 1965,  
pp 161-197.  
PI00231068-V  
FTD-HT-23-1241-67

Scientific  
Space Technology (Contd)

Life Support of Spacecraft Crews, by G. I. Voronin,  
A. I. Polivoda, 215 pp.  
RUSSIAN, bk, Zhizneobespecheniye Ekspeditsionnykh Kosmi-  
cheskikh Korabley, 1967, 211 pp.  
JPRS 46173

Cabin of Spaceships, by Sheng Ta  
CHINESE, per, Hang K'ung Chih Shih, No 4, 1960,  
pp 14-15.  
\*FTD-HT-23-869-68C

The Heat Barrier, by Wei Yeh, 7 pp.  
CHINESE, per, Hang K'ung Chih Shih,  
Vol 2, No 3, 1965, pp 8-10.  
PI00230968-V  
FTD-HT-23-590-67

The Soviet Union's Space Researches, 1966,  
by H. A. F. Schmidt.  
GERMAN, per, Flieger-Jahrbuch, 1968, pp 9-17.  
\*FTD-HT-23-831-68

The Determination of Orbit Perturbations of Arti-  
ficial Earth Satellites with the Aid of Gravity  
Anomalies, by K. R. Koch.  
GERMAN, per, Schweizerische Zeitschrift fur Ver-  
messung, Photogrammetrie und Kulturtechnik, Vol  
65, No 3, 15 March 1967, pp 99-111.  
ACIC TC-1415

Miscellaneous

For You, Humanity!, by I. Lazarenko, 10 pp.  
RUSSIAN, per, Artemika, Telekhanika i  
Svyaz, No 11, 1964, pp 66-69. PI00221167-V  
FTD-HT-24-274-67

Other Investigations  
RUSSIAN, rpt, Cospar Proceedings. Tokyo, Japan,  
1967, pp 75-78.  
\*FTD-HT-23-843-68

Patent Rights Defined, 6 pp.  
RUSSIAN, np, Ekonomicheskaya gazeta, 13  
Mar 1968, p 32.  
JPRS 45702

Scientific  
Miscellaneous (Contd)

Distribution, by E. Iakimova, 11 pp.  
RUSSIAN, np, Izvestiya, 24 Aug 1966, p 3.  
P100203268  
\*FTD-HT-67-323

Marxist-Leninist Philosophy and Problems of the  
Natural Sciences, by N. Semenov, 26 pp.  
RUSSIAN, per, Kommunist, Moscow, No 10, July  
1968, pp 48-65.  
JPRS 46525

Engineer or "Scientific Courier", by  
A. Konavalenko, 5 pp.  
RUSSIAN, np, Trud, 23 Nov 1966, p 2.  
P100203768  
\*FTD-HT-67-317

Vestnik of the USSR Academy of Sciences,  
152 pp.  
RUSSIAN, per, Vestnik Akademii Nauk SSSR, Vol  
38, No 4, Apr 1968, pp 3-66, 75-106, 109-113,  
120-127  
JPRS 45969

Vestnik of the USSR Academy of Sciences,  
210 pp.  
RUSSIAN, per, Vestnik Akademii Nauk SSSR,  
Vol 38, No 5, May 1968, pp 1-144.  
JPRS 46162

Vestnik of the USSR Academy of Sciences, 182 pp.  
RUSSIAN, per, Vestnik Akademii Nauk SSSR, Vol  
33, No 6, June 1968, pp 3-143.  
JPRS 46557

English Title Unknown, by V. Ya. Smolyakov.  
RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i  
Tekhnicheskoy Fiziki, No 1, 1967.  
\*FTD-HT-23-798-68

First International Congress of Neurologists,  
Psychiatrists and Neurosurgeons, Sofia, 4-6  
October 1967, 16 pp.  
BULGARIAN, per, Nevrologiya, psikhatriya i  
nevrokhirurgiya, Vol VII, No 1, 1968, pp 46-54.  
JPRS 45843

Scientific  
Miscellaneous (Contd)

Meeting of Republic Medical Society of  
Neurologists, Psychiatrists and Neurosurgeons,  
8 pp.  
BULGARIAN, per, Nevrologiya, psikhatriya i  
nevrokhirurgiya, Vol VII, No 1, 1968, pp 54-58.  
JPRS 45843

Resolution of First Congress of Neurologists,  
Psychiatrists and Neurosurgeons, 8 pp.  
BULGARIAN, per, Nevrologiya, psikhatriya i  
nevrokhirurgiya, Vol VII, No 1, 1968, pp 58-62.  
JPRS 45843

Problems and Discussions, by Ta-wei Shieh,  
CHINESE, per, Peking, T'u-ma, Kung-ch'eng  
Hsueh-pao, Vol 8, No 1, Jan 1962, pp 64.  
\*FTD-HT-23-840-68C

Beyond the Seventh Heaven, by Chan Jen-Yang.  
CHINESE, per, Ma Hsien Tien Ch' Shu, No 4,  
1966, pp 4-5.  
ACSI J-3767  
ID 2204055167

Intelligent Development of Energy Base Stressed,  
by K. Prochaska, 6 pp.  
CZECH, np, Hospodarske Noviny, 31 May 1968, p 9.  
JPRS 46031

Abidjan Institute of Tropical Ecology Described,  
by J. Soule, 5 pp.  
FRENCH, per, Bulletin d'Information et de  
Liaison, No 1, 1968, pp 46-50.  
JPRS 46357

Lieutenant Roger Casimirus, 6 pp  
FRENCH, School Folder, 23 Mar 1968,  
Dept of Navy/NSA 1271

The Air Cushion Tent.  
GERMAN, rpt.  
ACSI J-4246  
ID 283001366

Dornier Do-31 Testprogram, by D. W. Wood  
GERMAN, per, Flug Revue International.  
Luft- und Raumfahrtstechnik, No 2, 1968,  
pp 23-26 & 31.  
\*FTD-HT-23-841-68

**Scientific  
Miscellaneous (Contd)**

Science Minister Urges Better Research Results,  
by Guenter Frey, 9 pp.  
GERMAN, np, Die Wirtschaft, 3 Jul 1968,  
pp 3, 5.  
JPRS 46,348

Polish/Soviet Scientific Theory Symposium,  
by Janos Farkas-Gyula Paczolay, 5 pp.  
HUNGARIAN, per, Magyar Tudomány, Mar 1968,  
pp 183-186.  
JPRS 45843

New Doctors and Candidates of Science, 20 pp.  
HUNGARIAN, per, Magyar Tudomány, March 1968,  
pp 189-193.  
JPRS 45843

Report to the 1968 General Assembly of the Academy,  
by Tibor Erdely-Gruz, 14 pp.  
HUNGARIAN, per, Magyar Tudomány, June 1968, pp 342-  
353.  
JPRS 46302

Branch and Network Concepts of the Science of  
Science, by Janos Farkas, 21 pp.  
HUNGARIAN, per, Magyar Tudomány, June 1968,  
pp 357-373.  
JPRS 46302

Polish Chemistry Supported by USSR Oil, Gas,  
by Henryk Konopacki, 7 pp.  
POLISH, np, Handel Zagraniczny, (Special Ed),  
1968, pp 9-12.  
JPRS 46,348

Trends in Financing Scientific Research,  
by Teodor Brates, 10 pp.  
RUMANIAN, per, Finante si credit, Apr 1968,  
pp 45-52.  
JPRS 45843

Science as a Branch of the National Economy,  
by Al. Gheorghiu, R. Diaconescu, 13 pp.  
RUMANIAN, per, Revista de Statistica, May 1968,  
pp 3-12.  
JPRS 46302

Professor Advocates Scientific Science Policy,  
by Pavel Apostol, 5 pp.  
RUMANIAN, np, Romania Libera, 6 Aug 1968, pp 1-2.  
JPRS 46372

**Scientific  
Miscellaneous (Contd)**

Scientific Research Can Be Greatly  
Improved, by Barabas Endre, 5 pp.  
RUMANIAN, np, Scinteia, Bucharest,  
17 July 1968, p 4.  
JPRS 46421

Yugoslavia, Czechoslovakia Exchange More  
Experts, 5 pp.  
SERBO-CROATIAN, per, Prduktivnost, Jun 1968,  
pp 465-466.  
JPRS 46,354



INFORMATION RECEIVED DURING

OCTOBER

ON COVER-TO-COVER TRANSLATIONS

Acta Biochimica Polonica, Vol 15, No 2, 1968.  
CFSTI TT-68-50009/2

Doklady Akademiy Nauk SSSR, Matematika, Vol 180,  
No 1-6, 1968.  
The American Mathematical Society  
Vol 9, No 3, May-June 1968

Akusticheskiy Zhurnal, Vol 12, No 1, Jan-March 1966.  
The American Institute of Physics  
Vol 12, No 1, July-Sept 1966.

Elektrokhimiya, Vol 4, No 3, 1968.  
CB

Akusticheskiy Zhurnal, Vol 12, No 2, April-June  
1966.  
The American Institute of Physics  
Vol 12, No 2, Oct-Dec 1966.

Elektrosvyaz, Part 1, Vol 22, No 3, 1968.  
IEEE

Akusticheskiy Zhurnal, Vol 12, No 3, July-Sept,  
1966.  
The American Institute of Physics  
Vol 12, No 3, Jan-March 1967.

Elektrosvyaz, Part 1, Vol 22, No 4, 1968.  
IEEE

Elektrotehnika, Vol 36, No 4, 1965.  
The Faraday Press, Inc.

Archivum Immunologiae et Therapiae Experimentalis,  
Vol 16, No 3, 1968.  
CFSTI TT 68-50005/3

Fizika Tverdogo Tela, Vol 10, No 4, 1968.  
The American Institute of Physics  
Vol 10, No 4, October 1968.

Biokhimiya, Vol 32, No 1-6, 1967.  
CB

Geomagnetizm i Aeronomiya, No 1, 1968.  
The American Geophysical Union

Doklady Akademiy Nauk SSSR, Chemistry, Vol 178,  
No 4-6, Feb 1968.  
CB

Izvestiya Akademiy Nauk SSSR, Atmosfery i  
Okeanologicheskii, Vol 4, No 3, 1968.  
The American Geophysical Union

Doklady Akademiy Nauk SSSR, Fiziki, Vol 179,  
No 1-3, March 1968.  
The American Institute of Physics  
Vol 13, No 3, Sept 1968.

Izvestiya Akademiy Nauk SSSR, Atmosfery i  
Okeanologicheskii, Vol 4, No 4, 1968.  
The American Geophysical Union

Izvestiya Akademiy Nauk SSSR, Fizika Zemli,  
No 4, 1968.  
The American Geophysical Union

Izvestiya Akademiiye Nauk SSSR, Seriya Fizicheskaya, Tsvetnye Metally, Vol 40, No 4, 1967.  
Vol 31, No 9, 1967.  
The Columbia Technical Technical Translations

Primary Sources  
Vol 8, No 4, 1967

Izvestiya VUZ. Fizika, No 5, September-October  
1965.  
The Faraday Press, Inc.

Tyl 1 Snabzheniye, No 4, 1968.  
ACSI J-4982

Kristallografiya, Vol 13, No 2, March-April 1968.  
The American Institute of Physics, Inc.  
Vol 13, No 2, Sept-Oct 1968.

Uspekhi Fizicheskikh Nauk, Vol 93, No 3-4, 1968.  
The American Institute of Physics  
Vol 10, No 6, May-June 1968.

Ogneupory, No 11-12, Nov-Dec 1967.  
CB

Voyenno Meditsinskiy Zhurnal, No 8, 1967.  
ACSI J-3396

Optika i Spektroskopiya, Vol 24, No 4, 1968.  
The Optical Society of America

Voyenno-Meditsinskiy Zhurnal, No 5, 1968.  
ACSI J-5178

Optika Spektroskopiya, Vol 24, No 5, 1968.  
The Optical Society of America

Yadernaya Fizika, Vol 6, No 5, November 1967.  
The American Institute of Physics  
Vol 6, No 5, May 1968.

Radiotekhnika, Part 2, Vol 23, No 3, 1968.  
IEEE

Zhurnal Analiticheskoi Khimiy, Vol 23, No 1, 1968.  
JB

Radiotekhnika, Part 2, Vol 23, No 4, 1968.  
IEEE

Zhurnal Analiticheskoi Khimiy, Vol 23, No 2,  
1968.  
CB

Radiotekhnika i Elektronika, No 3, 1968.  
IEEE

Zhurnal Eksperimental'noi Teoreticheskoi Fiziki,  
Vol 53, No 6, 1967.  
The American Institute of Physics  
Vol 26, No 6, 1968.

Radiotekhnika i Elektronika, No 4, 1968.  
IEEE

Zhurnal Obshchei Khimiy, Vol 38, No 1, 1968.  
CB

Staub, Vol 27, No 12, 1967.  
CFSTI TT 67-51408/12

Zhurnal Organicheskoi Khimiy, Vol 33, No 10, 1968.  
CB

Steklo i Keramika, Vol 24, No 11-12, Nov-Dec 1967.  
CB

Zhurnal Prikladnoi Khimiy, Vol 41, No 1, 1968.  
CB

Zhurnal Tekhnicheskoi Fiziki, Vol 38, No 4, 1968.  
The American Institute of Physics, Inc.  
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### CORRECTIONS

The following corrections have been made by the author:

S. A. Lomov, *On a method of regularizing singular perturbations*, Vol. 8, (1967), no. 6, 1583-1587 (Russian pages Tom 177, 1273-1276).

1. On page 1584, line 3,  $\psi(x) \neq 0$  should be  $\bar{\psi}(x) \neq 0$ .

2. On page 1586, equation (13) should be

$$\psi'' + i\psi = F(i)$$

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### CORRECTIONS

The following corrections are translated from pp. 758 and 1014 of Tom 179.

E. P. Židkov, and I. V. Puzyrin, I. V. *The stabilization method of solving boundary value problems for nonlinear second-order ordinary differential equations*, Vol. 8 (1967), no. 3, 614-616 (Russian pages Tom 174, 271-273).

On page 616 the first line of 2) of the Theorem should read:

2) the boundary problem  $v'' + f_y(x, y(x))v = 0$ ,  $v(0) = v(1) = 0$  has only the trivial solution ...

Ju. G. Borisoviĉ and V. F. Subbotin, *The shift operator over trajectories of equations of evolution and periodic solutions*, Vol. 8 (1967), no. 4, 781-785 (Russian pages Tom 175, 9-12).

On page 784 the last line of Theorem 6 should read:

3) for  $\Delta = 0$ , the index  $\gamma(\theta)$  is undefined or is equal to zero according as condition (10) is or is not satisfied.

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#### CORRECTIONS

The author has called attention to the following misprint.

V. M. Kokilašvili, *Approximation in the mean of analytic functions of class  $E_p$* , Vol. 8 (1967), no. 6, 1393-1397 (Russian pages Tom 177, no. 2, 261-264):

In equations (3) on page 1394 and (8) on page 1396, the term  $\nu^{\beta_k-1}$  should be  $\nu^{\beta \cdot k-1}$ .

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Arth	$\tanh^{-1}$
arccos	$\cos^{-1}$ (arc cos)
arctg	$\cot^{-1}$ (arc cot)
arcsin	$\sin^{-1}$ (arc sin)
arctg	$\tan^{-1}$ (arc tan)
ch	cosh
cosec	csc
ctg	cot (ctn)
cth	coth (ctnh)
rot	curl
sch	sech
sh	sinh
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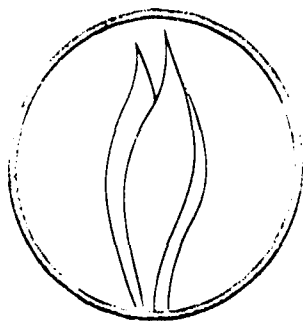
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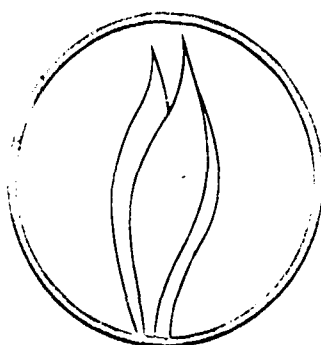
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<u>Soviet Usage</u>	<u>American equivalent</u>
Arch	$\cosh^{-1}$
Arcth	$\coth^{-1}$ ( $\text{ctnh}^{-1}$ )
Arsh	$\sinh^{-1}$
Arth	$\tanh^{-1}$
arocos	$\cos^{-1}$ (arc cos)
arotg	$\cot^{-1}$ (arc cot)
arcsin	$\sin^{-1}$ (arc sin)
arctg	$\tan^{-1}$ (arc tan)
ch	cosh
cosoc	csc
ctg	cot (cta)
cth	coth (ctnh)
rot	curl
sch	sech
sh	sinh
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cossec	csc
ctg	cot (ctn)
cth	coth (ctnh)
rot	curl
sch	sech
sh	sinh
tg	tan
th	tanh

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A translation of Steklo i Keramika

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RUSSIAN ABBREVIATIONS IN TEXT

AN SSSR.....	Academy of Sciences, USSR.
CPSU.....	Communist Party, Soviet Union.
Gintsvetmet.....	State Institute of Non-Ferrous Metals.
Gipronikel'.....	State Institute for the Design and Planning of Nickel Establishments.
Giprotsvetmet.....	State Institute for the Design and Planning of Non-Ferrous Metals Industry Establishments
Gosplan.....	State Planning Committee of the Council of Ministers of the USSR.
GOST.....	All-Union Standard.
IL.....	Foreign Literature Publishing House.
KazSSR.....	Kazakh SSR.
L.M.....	Leningrad-Moscow.
Mekhanobr.....	Scientific Research Institute for the Mechanical Concentration of Minerals.
TsNII Olovo.....	Central Scientific Research Institute for the Tin Industry.
UkrSSR.....	Ukrainian SSR.
VAMI.....	All-Union Aluminum and Magnesium Institute.

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Washington, D.C. 20505

7 September 2004

Ms. Roberta Schoen  
Deputy Director for Operations  
Defense Technical Information Center  
7725 John J. Kingman Road  
Suite 0944  
Ft. Belvoir, VA 22060

Dear Ms. Schoen:

In February of this year, DTIC provided the CIA Declassification Center with a referral list of CIA documents held in the DTIC library. This referral was a follow on to the list of National Intelligence Surveys provided earlier in the year.

We have completed a declassification review of the "Non-NIS" referral list and include the results of that review as Enclosure 1. Of the 220 documents identified in our declassification database, only three are classified. These three are in the Release in Part category and may be released to the public once specified portions of the documents are removed. Sanitization instructions for these documents are included with Enclosure 1.

In addition to the documents addressed in Enclosure 1, 14 other documents were unable to be identified. DTIC then provided the CDC with hard copies of these documents in April 2004 for declassification review. The results of this review are provided as Enclosure 2.

We at CIA greatly appreciate your cooperation in this matter. Should you have any questions concerning this letter and for coordination of any further developments, please contact Donald Black of this office at (703) 613-1415.

Sincerely,

A handwritten signature in dark ink, appearing to read "Sergio N. Alcivar".

Sergio N. Alcivar  
Chief, CIA Declassification Center,  
Declassification Review and Referral  
Branch

Enclosures:

1. Declassification Review of CIA Documents at DTIC (with sanitization instructions for 3 documents)
2. Declassification Status of CIA Documents (hard copy) Referred by DTIC (with review processing sheets for each document)



## Processing of OGA-Held CIA Documents

The following CIA documents located at DTIC were reviewed  
by CIA and declassification guidance has been provided.

OGA Doc ID	Job Num	Box	Fldr	Doc	Doc ID	Document Title	Pub Date	Pages	Decision	Proc Date
AD0831939	78-03109A	59	1	2	123	Consolidated Translation Survey Through 31 March 1968	3/31/1968	252	Approved For Release	3/25/2004
AD08333917	78-03109A	59	1	3	124	Consolidated Translation Survey Through 30 April 1968	4/30/1968	223	Approved For Release	3/25/2004
AD0835906	78-03109A	59	1	4	125	Consolidated Translation Survey Through 31 May 1968	5/31/1968	267	Approved For Release	3/25/2004
AD0838252	78-03109A	59	1	5	126	Consolidated Translation Survey Through 30 June 1968	6/30/1968	341	Approved For Release	3/25/2004
AD0839299	78-03109A	59	1	6	127	Consolidated Translation Survey Through 31 July 1968	7/31/1968	354	Approved For Release	3/25/2004
AD0841414	78-03109A	59	1	7	128	Consolidated Translation Survey Through 31 August 1968	8/31/1968	255	Approved For Release	3/25/2004
AD0844244	78-03109A	59	1	8	129	Consolidated Translation Survey Through 30 September 1968	9/30/1968	259	Approved For Release	3/25/2004
AD0845247	78-03109A	60	1	1	130	Consolidated Translation Survey Through 31 October 1968	10/31/1968	252	Approved For Release	3/25/2004
AD0847806	78-03109A	60	1	2	131	Consolidated Translation Survey Through 30 November 1968	11/30/1968	284	Approved For Release	3/25/2004
AD0848152	78-03109A	60	1	3	132	Consolidated Translation Survey Through 31 December 1968	12/31/1968	176	Approved For Release	3/25/2004
AD0848841	78-03109A	60	1	4	133	Consolidated Translation Survey Through 31 January 1969	1/31/1969	188	Approved For Release	3/25/2004
AD0850186	78-03109A	60	1	5	134	Consolidated Translation Survey Through 28 February 1969	2/28/1969	167	Approved For Release	3/25/2004
AD0851748	78-03109A	60	1	6	135	Consolidated Translation Survey Through 31 March 1969	3/1/1969	232	Approved For Release	4/5/2004
AD0853348	78-03109A	60	1	7	136	Consolidated Translation Survey Through 30 April 1969	4/30/1969	262	Approved For Release	3/25/2004
AD0856606	78-03109A	60	1	8	137	Consolidated Translation Survey Through 31 May 1969	5/31/1969	306	Approved For Release	3/25/2004
AD0857706	78-03109A	63	1	1	138	Consolidated Translation Survey Through 30 June 1969	8/22/1969	413	Approved For Release	3/25/2004
AD0858054	78-03109A	63	1	2	139	Consolidated Translation Survey Through 31 July 1969	9/3/1969	185	Approved For Release	3/25/2004
AD0860022	78-03109A	63	1	3	140	Consolidated Translation Survey Through 31 August 1969	10/3/1969	315	Approved For Release	3/25/2004
AD0860905	78-03109A	63	1	4	141	Consolidated Translation Survey Through 30 September 1969	9/30/1969	285	Approved For Release	3/25/2004
AD0861886	78-03109A	63	1	5	142	Consolidated Translation Survey Through 31 October 1969	10/31/1969	269	Approved For Release	3/25/2004
AD0863371	78-03109A	63	1	6	143	Consolidated Translation Survey Through 30 November 1969	11/30/1969	224	Approved For Release	3/25/2004
AD0864516	78-03109A	63	1	7	144	Consolidated Translation Survey Through 31 December 1969	12/31/1969	177	Approved For Release	3/25/2004